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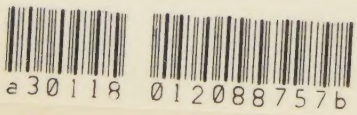
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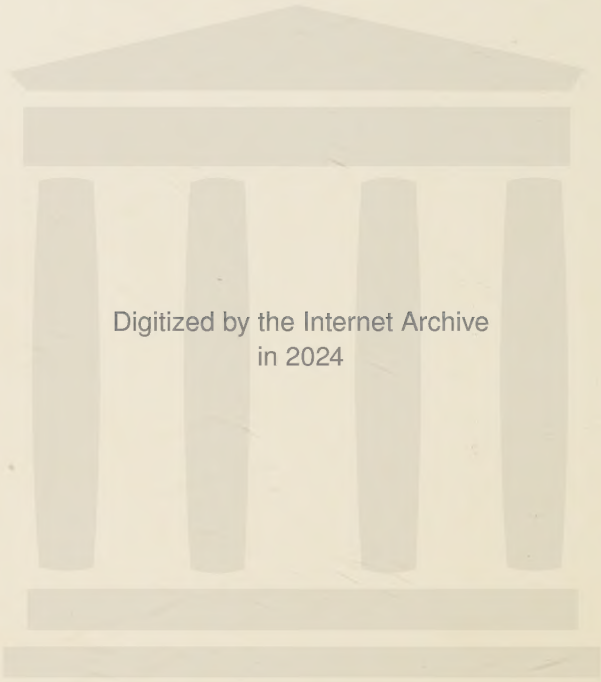
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Slip Dish, Adam and Eve, signed Thomas Toft.—
Collection of Dr. J. W. L. Glaisher, F.R.S.

[*Frontispiece, "British Pottery Marks"*

BRITISH POTTERY MARKS

BY

G. WOOLLISCROFT RHEAD

R.E., HON. A.R.C.A. LOND.

AUTHOR OF "THE HISTORY OF THE FAN," "THE PRINCIPLES OF DESIGN" "A HANDBOOK OF ETCHING," "THE TREATMENT OF DRAPERY IN ART" "CHATS ON COSTUME," "STUDIES IN PLANT FORM," "AN ALPHABET OF ROMAN CAPITALS," ETC.

JOINT-AUTHOR OF "STAFFORDSHIRE POTS AND POTTERS"

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WITH FOURTEEN ILLUSTRATIONS IN HALF-TONE AND UPWARDS OF TWELVE HUNDRED MARKS IN THE TEXT

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LONDON

SCOTT, GREENWOOD & SON

"THE POTTERY GAZETTE" OFFICES

8 BROADWAY, LUDGATE HILL, E.C.

1910

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PREFACE.

The main purpose of the present work will be sufficiently obvious; it is to assist the collector, connoisseur, student, and general reader in the identification of the various British pottery wares. It will be well, however, to point out to the collector of limited experience, that marks by themselves in many cases form no sufficient guide; potters were continually imitating each other's marks, although in many instances, doubtless, there was no intention to deceive. The crossed swords of Dresden were imitated with slight additions at Bristol, Coalbrook Dale, Caughley, Worcester, and other places; the anchor mark is ubiquitous; the crown has become almost universal, though this mark is not likely to mislead; the crescent, the distinctive mark of Worcester, was used at Bow, and it was employed at Caughley; it is also seen on Lowestoft china and Staffordshire earthenware, while the crossed S's of Sèvres formed one of the earliest marks of Minton, and is to be seen on Coalport, Derby, and Worcester pieces. Moreover, the earlier English Pottery was unmarked, the practice of marking pieces not becoming general until the second half of the eighteenth century. On Slip Wares, marks, in the modern sense, are non-existent, although potters' names undoubtedly appear. On Salt Glaze, marks are exceedingly rare; the collection here given being by far the most complete at present published. The Elerses used only an imitation Chinese mark, and none can with absolute certainty be identified. No marks are known of Twyford or of Whieldon, and some of Wedgwood's finest pieces are without this means of identification. There is also to be considered the practice of buying ware in the white for purposes of

decoration, though, again, not always with intent to deceive ; of buying slightly decorated pieces, polishing off the decorations, and re-decorating them ; and there is the systematic and wholesale imitation of pieces in all their characteristics, many able artists being employed in this nefarious trade. Mr. Solon was once successfully hoodwinked by one of his own apprentices, and where such an accomplished craftsman and connoisseur trips, it is not likely that the ordinary collector will be able to keep his feet. In view of these circumstances, therefore, marks can only with perfect safety be taken as confirmation of the various characteristics of a piece, as body, glaze, and qualities or style of workmanship, though, doubtless, in a large number of instances the mark may be accepted as final.

I take this opportunity of expressing my obligations to Mr. Percy Adams, the Rev. G. H. Davenport, and the Secretary of the Royal Worcester Porcelain Works for kindly reading the proofs of the sections devoted to "Adams," "Davenport," and "Worcester" respectively: the information under these heads may therefore be taken as absolutely first hand. Also to Dr. J. W. L. Glaisher, F.R.S., for permission to reproduce the four pieces of slip ware from his unrivalled collection, for valuable items of information in connection with these wares, and for several rare marks, notably those of Elers and Astbury ; to Mr. Louis H. Jahn, the able Curator of the Hanley Museum, for the Ralph Wood teapot-spout moulds, the sheet of Mintons' Yearly Marks, invaluable to collectors of Mintons' china, and for other favours ; to Mr. A. E. Clarke, of Wisbech, for the Derby earthenware teapot and the Wolfe plate ; and to General Terry, Captain Terry, Mr. W. Bosanko, Mr. George F. Glenny, and the Curator of the Mayer Museum, Liverpool, for help in various ways.

G. WOOLLISCROFT RHEAD.

LONDON, *May*, 1910.

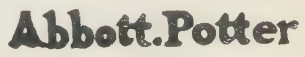
MARK, OR
HIS BOOK

BRITISH POTTERY MARKS

ABBEY POTTERY. The old pottery connected with the Abbey of Hulton, formerly worked by the monks, and afterwards by Richard Adams and others.

ABBEY, RICHARD. An engraver of Liverpool, founder of the Herculaneum Pottery. Served his apprenticeship with Sadler. He made a number of jugs of the "Farmers' Arms" type, and various subjects celebrating the triumphs of commerce. Retired in 1796. See Liverpool (Herculaneum).

ABBOTT. Sometime partner with John Turner at Lane End. The firm appears in the survey of 1786 as "Turner & Abbott, Potters to the Prince of Wales, Lane End". The impressed mark given is from an earthenware baking-dish with wavy pattern, in the collection of Dr. J. W. L. Glaisher.



ABINGTON. See Ridgway and Abington.

ABRAHAM, R. F. A figure painter of considerable talent, pupil of Etty and Mulready. Studied at Paris and Antwerp. He worked for some time at the Coalport factory, where he painted a number of vases, plates, etc., finely drawn, rich and subtle in colour, and full of technical qualities of an unconventional kind. As he was only painting on china for a few years, his signed pieces command high prices. From Coalport he went to the Hill Pottery, Burslem, where he produced some painted work and a number of designs. About 1870 he was engaged as Art Director to the Copeland firm, a position he filled until his death in 1896.

ABRAHAM, R. J. Son of the above. Studied at the Stoke and Hanley Schools of Art, and afterwards at South Kensington. He is associated with the production of notable mural decorations by the Copeland firm. See Copeland.

ABSOLON, enameller. See Yarmouth.

ACKROYD, HENRY. One of the many partners in the Leeds Pottery. See Leeds.

ADAMS, a painter for Thomas Turner of Caughley.

ADAMS. There were many members of the family of Adams potting in Staffordshire. William Adams (an ancestor of the potters) owned property in Tunstall in the reign of Edward the First. Nycolas Adams, who was buried within the church at Burslem in 1568, together with his direct descendants down to the present time have been master-potters. John Adams built the "Brick House" Works at Burslem in 1657 (at one time occupied by Josiah Wedgwood). His son, William Adams, built the Cobridge Works, where he manufactured cream colour, enamelled and blue-printed ware.

WILLIAM ADAMS of Greengates, was cousin to the above, and was a friend and pupil of Josiah Wedgwood. He established the Greengates Pottery, at Tunstall, in 1787. He made black basaltes, cream colour and jasper. He has been called an imitator of Wedgwood, but was more properly a friendly rival, for his wares have an individuality, and are in no sense copies. He was an expert modeller, and he also employed a talented Swiss, one Joseph Monglott, who executed many notable bas-reliefs. The jasper-wares are beautifully finished, and the stonewares unsurpassed. Many collectors prefer the colour of the Adams dark blue jasper to that of Wedgwood. He generally stamped his wares ADAMS, but many authentic specimens exist which have no mark. He died in 1805, and the business was carried on for some time in the name of Benjamin Adams, his son. This branch of the family is now extinct, but the business is carried on by the descendants of his cousin, the father of Adams of Stoke. This cousin, Richard Adams, was

Deep Blue and White Dish. St. George's Chapel. Regent Street, W. Adams of Stoke, 1820. Eagle impressed mark, also eagle printed mark.

Fine Stone Ware Jug, 1780 period. Figure subjects in relief. Brown glazed neck, 7 in. high. Collection of Dr. Sidebotham. Cheshire. Mark impressed Adams.

also a master-potter. He was born in 1739, and commenced to make salt glaze earthenware and white stoneware at Cobridge. He did not mark his wares. His only son, William Adams of Fenton Hall, was born in 1772. He had an interest in his father's works at Cobridge, and also in the Hadderige Pottery at Burslem, besides carrying on five separate potteries in Stoke. Adams of Stoke made excellent blue-printed wares, general earthenware, porcelain and Parian busts and statuettes. The two factories at Tunstall, Greenfield, and Greengates (formerly worked by Greengates Adams of jasper fame) passed into the hands of the son of William Adams of Stoke, and his descendants are now working them.

The four William Adamses may be given in chronological order as follows:—

William Adams of Greengates, 1745-1805.
William Adams of Brick House and Cobridge Hall, 1748-1831.
William Adams of Stoke-on-Trent, 1772-1829.
William Adams of Greenfield, 1798-1865.

The first three were cousins, the last two father and son. The marks are as follows:—

ADAMS OF GREENGATES, 1745-1805.

For cream-ware, 1780 period, "Adams & Co." in lower-case letters with caps.

Adams & Co.

The mark "Adams & Co." impressed in capitals is the earlier mark on the solid jasper, 1780-1790.

ADAMS & CO.

From 1780 to the death of Adams in 1805, the word "Adams" in caps impressed was used for printed ware, fine stoneware and jasper, both surface and solid.

ADAMS.
Old Mark used for Jasper,
1780-1805.

The name W. Adams & Co. in caps is occasionally seen on jasper.

The above marks are not now used.

BENJAMIN ADAMS (son and successor of above) used the

mark "B. ADAMS" impressed, from 1809-1822 for both blue printed, stoneware and general earthenware.

The present firm (successors to William and Benjamin Adams) have added the word Tunstall to the name, upon jasper-ware since 1896.

ADAMS
ESTBD 1657
TUNSTALL.
ENGLAND.

Upon stoneware the words ADAMS TUNSTALL in caps, impressed and occasionally with the mark printed in green. This latter mark is also used for the richly enamelled Chinese and Japanese effects extensively made by the Adams firm.

WILLIAM ADAMS of Brick House and Cobridge Hall, 1748-1831.

The stamp **ADAMS** in block letters was used in exceptional instances.

WILLIAM ADAMS of Stoke, 1772-1829, and WILLIAM ADAMS of Greenfield, 1798-1865. The word ADAMS impressed is found on all kinds of ware *except the deep blue transfer*.

The mark used for the blue transfer printed is the impressed eagle mark which appears on all blue printed of the period between 1804 and 1840. After 1820 a *printed* mark was often added to this, *viz.* :—

The eagle with olive branch and arrows.

The name of the pattern given in the scroll.

The names of other patterns given in various decorative scrolls.

The flying eagle with cornucopia appears printed on all the American scenes from 1830-1850. This mark is occasionally used in modern work, chiefly on designs of a conventional character.

The impressed mark "Adams warranted Staffordshire" in a circle, with royal crown, is occasionally seen on conventional designs (blue printed) about 1820.

The marks W. ADAMS & SONS, and ADAMS in caps, printed, appear on enamelled ironstone china. The same names, with Stoke-upon-Trent added, appear both on ironstone china and porcelain.

The large old English caps, impressed, appear on Parian statuary.

(Printed) plain ironstone china, 1840, still used.

(Printed) semi-porcelain, still used. This mark was never used extensively.

The stag with "Adams England" appears on useful ware, and is still used.

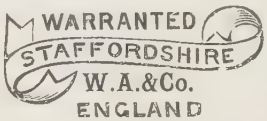
(ADAMS OF GREENFIELD.) Sponged ware, painted by hand as well as most of the hand-painted pieces, usually impressed with the name of ADAMS, the letters curved. This hand-painted under-glaze work is called Persian painted ware; the stag mark is also used.

For semi-porcelain, table-ware, etc., still used.

1820-1860, for porcelain and ironstone ware; not now used. W. A. & S.

Used occasionally, and in conjunction with various marks. W. A & CO.

These two marks are still used.



This mark is used for Etruscan-ware, a white semi-porcelain, with black or other self-coloured enamelled surface and classical subjects, etc.

ADAMS (Beech & Adams), Stoke-on-Trent. Mr. Harvey Adams, china manufacturer, before mentioned, joined Mr. Beech about 1880, and they made majolica and Parian at the "Cock" Works, Stoke, previously occupied by Mr. W. H. Goss, and afterwards by Mr. Joshua Poole. About 1890 Mr. Harvey Adams retired, and Mr. Leonard Wood joined Mr. Beech, but the connection only lasted a few years, and the works were closed. The variety and character of the productions of this little pottery give it an interest (to collectors) out of all proportion to its size. The wares are rarely stamped.

ADAMS & BROMLEY, Shelton, manufactured jasper and majolica from 1873-1880. The jasper was of middling quality,

and consisted almost exclusively of imitations of Wedgwood designs. It was generally stamped Adams & Bromley, or A. & B. Shelton. This firm succeeded John Adams & Co. in 1873. Had no connection with the Adamses of Tunstall.

ADAMS & COOPER, made, from 1842-1870, china of good quality at the High Street Works, Longton.

ADAMS & PRINCE, Lane Delph, 1810. This name appears in caps impressed.

ADAMS, HARVEY, & CO., who have no connection with the Adams family above mentioned, made china of good quality at Longton from 1862 to about 1878. The well-known landscape painter, Henry Mitchell, was employed by this firm. There are no marks on the ware.

ADDERLEYS LTD., Daisy Bank, Longton, manufacturers of china and earthenware of very good quality.

AINSWORTH. A maker of white and printed wares at North Stockton.

ALCOCK & DIGGORY. Successors of Samuel Alcock & Co. at the Hill Pottery, in 1867. Style of firm changed to Bodley & Diggory (1870), E. F. Bodley (1871), Bodley & Son (1874), E. J. D. Bodley (1875). Now extinct.

ALCOCK & KEELING occupied the Nile Street Works (now Doulton's) previous to the building of the Hill Pottery, when Keeling retired from the business. They made earthenware and terra-cotta. No known marks.

ALCOCK, HENRY, & CO., LTD., Waterloo Road, Cobridge, Staffs, are the successors of John Alcock at Cobridge. They manufacture good semi-porcelain, chiefly for exportation to America.

ALCOCK, J. & G., were the predecessors of H. Alcock & Co., and were established in 1843.

ALCOCK, RICHARD, succeeded Burgess & Leigh (who took the Hill Top Works, Burslem, in 1867). He was in turn succeeded by A. J. Wilkinson.

ALCOCK, SAMUEL, a figure painter employed by Copelands. He studied in the schools of the Royal Academy, and produced well-designed work of great delicacy and beauty of colour.

ALCOCK, SAMUEL, & CO. Established about 1830 on the premises formerly worked by Ralph Wood; at Hill Top, Samuel Alcock built in 1839 the fine block of buildings known as the Hill Pottery. He made china, terra-cotta, stoneware, and earthenware of a light description. His china was of excellent quality, well modelled and well decorated. His speciality was outlines of Greek figures printed and lightly coloured with ground-laid backgrounds of various hues in enamel. These were executed in both china, earthenware, stoneware and terra-cotta. Samuel Alcock made a number of jugs with modelled figure designs resembling Wedgwood's jasper, but glazed. They are usually in lavender and white. He did not often mark his wares, but they were occasionally stamped or printed S. ALCOCK & CO. or S. A. & Co., in block letters.

ALDERHOLB, Hampshire. Potteries still exist here for the manufacture of domestic wares in the coarse New Forest clays.

ALDERS, THOMAS. This potter, together with John Harrison, were the first partners of Wedgwood at Cliffe Bank, Stoke-on-Trent, in 1752. They made knife handles, pomade and powder boxes, and numerous small articles in agate

tortoise-shell, mottled and black wares. It is very difficult to positively identify any article as the production of Alders, as a number of other potters made the same class of wares, all unmarked, and Whieldon & Wedgwood employed the same processes, although generally in an improved form.

ALDERSEA, JOHN & THOMAS, were makers of tortoise-shell, clouded and other wares at Stoke-on-Trent in the eighteenth century.

ALFRETON. Coarse brown and red ware of common quality was made here in the latter part of the eighteenth and the early part of the nineteenth centuries.

ALGAR. Proprietor of one of the three potteries in Plymouth in 1815.

ALLCOCK & WARD manufactured cheap lilac-figured china at Lane End about 1800.

ALLEN, RALPH. Burslem about 1750.

ALLEN, ROBERT. See Lowestoft.

ALLEN, THOMAS. A well-known Staffordshire painter of figures. Studied at Marlborough House, and was employed by the Minton firm for many years, contributing important work to the various exhibitions and taking a prominent part in the execution of the painted hexagonal tesserae decoration of the staircase leading to the ceramic court of the Victoria and Albert Museum. In 1872 he accepted the position of Art Director at Wedgwoods, for whom he painted many large vases, plaques, etc. He retired in 1906.

ALLERTON, CHARLES, & SONS. Park Works, Longton.

Established 1831. Makers of general earthenware, china and

lustre, and are best known by the latter, especially the bronze variety, although many of their earlier examples of platinum lustre are esteemed by collectors. We give their marks for earthenware (semi-china) and china, but do not know of any instance of marked lustre made by them.

ROYAL ALLER VALE and WATCOMBE ART POTTERIES, Newton Abbott, Devon; Watcombe, Torquay. Establised 1869. The ware is made from a fine local red clay, generally covered with a coating of white slips, which is used as a vehicle for characteristic graffito patterns. Antique forms are freely copied, and many new and quaint shapes are made. The articles are usually small, and a common device is the employment of a proverb or motto scratched in the clay.

ALLER VALE.

ALLMAN, BROUGHTON & CO., were for a very short period occupiers of the Overhouse Works, Burslem (probably from 1861 to the end of 1862). They marked their wares A. B. & Co., and were succeeded by Messrs. R. Hammersley & Co., who have recently gone out of business.

ALLOA. In Scotland. Established in 1790 by James Anderson, and continued by William Gardner until 1855, when they were purchased by Messrs. W. & J. Bailey.

ALNWICK. There were potteries here in the seventeenth and eighteenth centuries, but there are now no traces beyond the names of streets, etc., such as "Pottergate," etc.

ALSOP, JAMES. A brown stoneware potter of Water Lane, Bristol, about 1775.

ALSOP, WILLIAM, Plymouth. White and blue printed earthenware. The works were closed in 1863. The mark was the royal arms and P. P. Coy. L. (Plymouth Pottery Co. Ltd.).

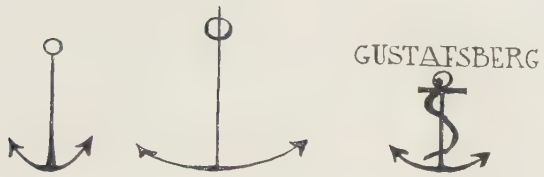
AMBLECOTE. Dr. Plot, writing in 1686, mentions a pottery at this place.

AMISON, CHARLES, Stanley Pottery, Anchor Road, Longton. China.

ANCHOR PORCELAIN CO., Anchor Road, Longton, Staffs. (Late T. Morris.)

ANCHOR, BRITISH, Longton. General earthenware. Mark, an anchor, and BRITISH ANCHOR POTTERY LIMITED.

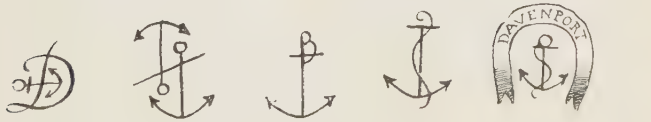
ANCHOR MARKS. Many potters, British and foreign, have used the anchor as a trade-mark. It is the true Chelsea mark. It was continued at Derby, and was sometimes used at Bow. Davenports of Longport frequently used the anchor, but with the addition of their name. It has been used at Worcester, and also by the Herculaneum Pottery at Liverpool. Other British potters who have used the anchor as a mark are Furnivals of Cobridge, and Fell of Newcastle-on-Tyne. The well-known Spanish pottery of Buen Retiro used the anchor, and it has been, and is used by several Austrian and German firms. The anchor mark occurs on a Savona plate belonging to Mr. Reynolds. It was used at Sceaux, in France, and Gustafsberg in Sweden, and Cremer of Cologne used a mark consisting of three anchors. It has also been used by the *fabriques* of Goggingen and Mettlach. On the Venice porcelain it occurs in several forms, both alone and with initials. One example has the initials G. M. (the mark of the painter Giovanni Marcone), and another the letters V. F., probably also a painter's mark; it also occurs on Middlesbro' and Boulogne wares.



Venice

Cologne

Chelsea



Derby

Fell

ANCHOR MARKS.

ANDERSON & BELLAMY. China manufacturers of Longton in the early part of the nineteenth century. Succeeded by Collingwood & Greatbatch.

ANNFIELD POTTERY, Gallowgate, Glasgow. Both china and earthenware were made here in the first half of the nineteenth century by John Thompson & Co.

ARMITAGE. Here are large sanitary works carried on by the Henry Richards Co. Various kinds of pottery have been made here at different times. Plot, writing in 1686, speaks of a manufactory of pipes made from the greyish clay of the district, which burnt white.

ARROW MARKS. The arrow has been extensively used as a trade-mark. Caughley used a coarse arrow-head (with about half of the shaft) in blue, and the Leeds Pottery employed the same symbol, treated very similarly. Absolon of Yarmouth used the arrow, and another Yarmouth pottery (unknown) also marked their pieces with an arrow. There is an example of Worcester (from the Baldwin Collection) marked with crossed arrows in red. Pinder, Bourne & Co. of Burslem (afterwards Doulton & Co.) used a mark with an arrow dependent from the inside apex of a triangle. On the Continent it was used at Thuringia, with initials, and the Faubourg St. Antoine Pottery, Paris, marked their wares in blue with headless crossed arrows.

ASBURY, EDWARD, & CO., LTD., Prince of Wales' Works, Longton, Staffs. China. Established by Shirley & Freeman in 1863, and succeeded by Hammersley, Freeman & Co. Changed in 1870 to Hammersley & Asbury, and in 1875 to Edward Asbury & Co.

ASH, JOHN. Pot maker, Bottle Lane, Nottingham, 1774. No wares are traceable to him.

ASHBY HOLES, Gresley Common, near Burton-on-Trent. Here is a yellow ware manufactory, established in 1846 by William Edwards.

ASHWELL, Longton, succeeded to the china works of Messrs. J. & T. Carey in 1845. Mr. Ashwell was in turn succeeded by Mr. W. Green in 1858, who gave place a few years later to Messrs. Copestake Bros.

ASHWORTH, GEO. L., & BROS., Hanley, Staffordshire, successors of Francis Morley, who purchased the Mason business. The firm is still working under the same title, and manufacturing the Mason patterns. See Mason.

ASKEW, RICHARD. An able figure painter, employed at Chelsea, and afterwards at Derby (1772).

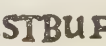
ASQUITH, GEORGE. One of the painters in the Castleford works in 1821.

ASTBURY, JOHN and THOMAS, Shelton. The two Astburys, father and son, must take rank among the most distinguished potters of the eighteenth century. John Astbury, the elder, was buried at Stoke, 6th March, 1743, aged 55. He is the potter who, together with Twyford, are said to have

filched the potting secrets from the Brothers Elers by feigning idiotcy. Upon his return to Shelton he made the red unglazed ware of the Elers with engine-turned decorations. He made this same red ware with applied stamped decorations in slip or clay, coated with a rich lead glaze. He applied this red ware to figures, in which clays of other colours, chiefly white or cream colour, are introduced. He also made salt glaze, and most of those pieces in which the ornament is made up of figures, animals, etc., derived from Oriental sources must be attributed to him. He is credited with having discovered the use of calcined flint, although Wedgwood attributes this discovery to Thomas Heath.

Of Thomas, the younger Astbury, the accounts are very conflicting. There is a Thomas, son of John and Deborah Astbury, who was baptised at Stoke in 1719, and the various accounts of Thomas Astbury having commenced business in 1723 and 1725 at Shelton and Lane Delph are probably incorrect. Thomas Astbury first introduced the cream-coloured body, which was afterwards perfected by Wedgwood.

The marks used by the Astburys are the word Astbury in capitals impressed, and a square imitation Chinese mark. In the British Museum is a curious teapot of black Egyptian ware in the form of a tree stump, with a rude seated figure of Britannia on the lid, marked "Astbury". Dr. J. W. L. Glaisher has four examples of red engine-turned ware, the mouldings and the engine turning differing slightly in the various pieces—a cream jug with a square Chinese mark, a covered sugar box, unmarked, a teapot and covered jug marked "Astbury". In the Schreiber Collection is a similar jug bearing a different mark, given in the margin. Marked examples of English earthenware prior to 1760 are very rare; it was the fancy of the early potters to employ various imitation Chinese



seal marks, doubtless induced by the fact of many early pieces being founded upon Chinese models. This practice, initiated by the Elers, was continued by the Astburys and also by other potters. See "Elers'" marks.

The various kinds of wares produced by the Astburys are as follows:—

1. Black Egyptian ware, of which the marked teapot in the British Museum above referred to is an example.
2. Red engine-turned ware, of which Dr. Glaisher's specimens are authentic examples.
3. Earthenware bodies of various colours, principally reddish-brown and fawn colour, stamped with relief ornaments and glazed with a rich lead glaze. The Portobello bowl in the British Museum is a typical example, and is identical in colour and quality of body with the small figures universally attributed to Astbury.
4. Sgraffito, a red ware covered with a coating of white slip, through which a pattern is cut or scratched with a sharp-pointed instrument. The jug in the British Museum, G. 39, is an excellent example of this process, although whether it can be attributed to either of the Astburys is a question.
5. Figures, made of two different coloured clays with dotted slip decorations occasionally added. A number of these figures exist. The examples in Mrs. W. S. Salting's collection are typical.
6. Salt glaze.
7. White and cream-coloured earthenware. Plates exist painted freely with Chinese subjects in blue, marked ASTBURY, impressed.

ASTBURY, ENOCH, owned a pottery in Burslem in 1750. Maker of good class china. One of the firms included in the Grimwade Syndicate. See Grimwade.

ASTBURY, RICHARD, Lane Delph, about 1800.

ASTLES, SAMUEL. A painter of flowers employed at th Worcester factory.

ATLAS CHINA CO., LTD., Atlas Works, Wolfe Street, Stoke-on-Trent. Formerly Chapman & Sons (Stoke-on-Trent), Ltd., who took over the business and works of J. Beech & Son.

ATLAS TILE WORKS, Vine Street, Hanley. Was worke by W. Burton in the middle of the last century for the manufacture of common earthenware and cottage ornaments. From 1860 to 1875 John Buckley made sanitary ware here, and about 1880 Messrs. Sherwin & Cotton established their tile business at the Vine Street Works. They worked it some years and left it in order to occupy a new and more spacious factory Tiles were made at the Atlas Works successively by Pidduc & Maguire, Elliots Limited, and Francis Theimeicke. Th business was purchased from the latter in 1908 by F. H Barker and F. Rhead, who are trading as F. H. Barker & Rhead, Limited.

AULT, WILLIAM, Swadlincote, near Burton-on-Trent. A manufacturer of artistic wares, capably potted and well designed. Mr. Ault relies chiefly upon the beauty, variety and richness of his coloured glazes.

AYLESFORD. Mr. Thomas Betts established terra-cott works here in 1850, working a native bed of clay of fine quality

ANSLEY, J. (or AYNSLEY), Lane End, close of the las century. In the Victoria and Albert Museum is a pint mug barrel shaped, printed in black, and coloured in enamel. O the front is a subject of a convivial party seated at a tabl

On either side of the subject a ribbon inscribed "The Gene—ral Toast," below are engraved the verses of "Here's to the Maid of Bashful Fifteen". The subject is signed "J. Ansley Lane End". The piece is extremely good and interesting. A plate in the Schreiber Collection is also signed. J. Ansley died in 1826.

AYNSLEY, H., & CO., Commerce Works, Longton, Staffs. Earthenware.

AYNSLEY, JOHN, & SONS, Longton. Manufacturers of china of good quality and fair decoration of an adaptive kind. Mr. John Aynsley was a person of some importance in Longton; he gave much to charities, and died in the beginning of 1907.

BACCHUS, THOMAS, Lane End, afterwards moved to Lane Delph, or Middle Fenton. According to Shaw, his first wife was the widow of the second Astbury, who died in 1743. Bacchus made cream-coloured and blue-painted wares of ordinary quality. His productions improved very much towards the end of his career. This improvement has been attributed to the influence of his second wife, who had the reputation of being a skilled painter. Bacchus made jugs and similar articles with historical and allegorical subjects, full of character and vigour. The same types were continued by Felix Pratt. Bacchus used no mark, and the attribution to him of certain pieces in private collections is speculative or traditional.

BACCHUS, WILLIAM, 1786. Manufacturer of Queen's ware in all its branches.

BACON, JOHN, R.A., born in Southwark, 20th November, 1740. Allan Cunningham, *Lives of British Painters, Sculptors and Architects*, states that Bacon was apprenticed to Crispe of Bow Church, an eminent maker of porcelain, "who taught him

the art of modelling the deer and the holly-tree," etc. Bacon is said to have modelled for Bow, Chelsea, Derby, and also for Wedgwood. The Bow statuette in the British Museum, of a cook with a dish of fowls, marked with an impressed capital B, is probably by him. The mark B stands, however, for "Bow" and not for the modeller. The pair of Bow figures of a lion and lioness on a rocky base with incised marks on the one of an arrow with ring, and on the other a caduceus, are also said to be by Bacon. If, however, these figures are by Bacon, they must be regarded as early works, as they do not exhibit sufficient sense of style or knowledge of form to be the product of his more matured powers. John Haslem, "The Old Derby China Factory," refers to an old memorandum in the possession of Mr. Henry Duesbury in 1862, which states that William Duesbury paid £75 7s. 2d. for models to Bacon in 1769 for the Derby Works.

BADDELEY, MESSRS. R. & J. Makers of salt glaze and blue-printed ware at Shelton about 1750. They made the first attempts at blue printing under glaze, afterwards adopted by all other local potters. There is a basket in the British Museum (G. 104) with open-work side and stamped floral ornaments, ascribed to the Baddeleys.

BADDELEY, RALPH B., Hanley, 1794. Succeeded by John & Edward Baddeley in 1796.

BADDELEY, THOMAS. Engraver and black printer at Chapel Field, Hanley, about 1802.

BADDELEY, WILLIAM, commenced to make brown ware at Eastwood, Hanley, in the early part of the eighteenth century. About 1740 he invented an engine lathe, and began to make turned articles in cane and brown ware. He was succeeded by his son William, who made many improvements in the bodies, and attempted to palm off some of his goods as Wedgwoods, by the partial obliteration of the first part of his mark EAST-WOOD—leaving the "East" indistinct and the "Wood" clear. His son William commenced in Queen Street, Hanley,

the manufacture of earthenware knobs for tin and japanned tea- and coffee-pots. This William Baddeley is credited with being the first to make telegraphic insulators from metal dies. He removed to Wharf Street, Longton, and there initiated the manufacture of imitation buckhorn handles for knives, forks, etc. At the outset the demand for these in the Sheffield trade was great, but the working handlers of Sheffield became alarmed at the competition, refused to work up the pottery handles, and several masters were threatened that if they did not give up the terra-cotta knife-handle trade, their works would be blown up. As, at this time, the Sheffield operatives were known to be as good as their word, the masters, being intimidated, discontinued the use of these handles. Mr. Baddeley himself, on visiting Sheffield, narrowly escaped assassination, and on his return to Longton, letters were sent to him, threatening that if he did not give up making the handles, he and his works would be "done for". The manufacture was then discontinued. The third William Baddeley invented the "thimble" placing rack now indispensable to manufacturers. He died in 1864. His son, the fourth William Baddeley, commenced to make rustic articles in terra-cotta in the Normacot Road in 1862. His imitations of bark and of various woods were ingenious and clever though not very artistic.

BAGGALEY, JACOB. Partner with Jos. & William Machin about 1806-1840 at the works now occupied by T. & R. Boote.

BAGGALEY, THOS., Lane Delph. Maker of furniture castors, chimney ornaments, etc., about 1818.

BAGGALEY, THOS., Tunstall, 1818. Earthenware.

BAGGALEY & VODREY, Tunstall, about 1810. Makers of blue-printed and general earthenware.

BAGNAL & BOON, Shelton, about 1796. Made lilac-figured china.

BAGNALL, CHARLES, Shelton, about 1760-1777. One of the syndicate of Staffordshire potters to whom Champion sold

Cookworthy's patent for the making of true porcelain. Became one of the proprietors of the New Hall China Works. Chaffers mentions a potter named Bagnall at the Grange, Burslem, in 1715, a maker of butter pots, whose name appears in the list drawn up in 1776 by Josiah Wedgwood, of potters working in Burslem in his grandfather's time.

BAGNALL, SAMPSON, Lane Delph, about 1795. Made salt glaze, blue wares and rude figures.

BAGSHAW, TAYLOR & MAIER, Burslem, about 1798.

BAGSTER, JOHN DENTON. Was partner with Phillips the china merchant of Oxford Street, in succession to the assignees to Wilson of Hanley.

BAGULEY, C., Hanley, early part of the nineteenth century. There is a group extant in white biscuit, resembling Parian in many of its characteristics, of two children playing with a rabbit marked in relief—"Published by C. Baguley, Hanley, Staffordshire, 20th July, 1810".

BAGULEY, ISAAC. Painter of birds at Rockingham, in the employ of Messrs. Brameld. Afterwards decorated earthenware and china. He used the Fitz-William crest as a trademark, with the name, Baguley, Rockingham Works.

BAILEY. The "Butterfly" painter of Swinton. Butterflies were a favourite "motif" at the Swinton Works, and were frequently modelled as "knobs" and handles to sauce tureens, cups, etc.

BAILEY, C. J. C. Successor to Dwight of Fulham in 1864.

BAILEY, WM. & J. A., Alloa, Scotland. Earthenware and stoneware.

BAILEY & BATKIN, Longton. One of the earliest makers of lustre wares in Staffordshire. Succeeded by Bailey & Deakin.

BAKER. Wedgwood, writing to Bentley in 1768, complains of a Messrs. Bagnall & Baker who were copying his patterns, especially the "blue-necked vases". The Bagnall referred to is probably Charles Bagnall of Shelton, who was potting about 1760.

BAKER, Cheam, Kent, about 1851. Flower pots, rustic fern stands, vases and similar wares were made.

BAKER. Partner in Messrs. Bourne, Baker & Bourne of Fenton.

BAKER, JAMES & SONS, late Harrison & Baker. The only potters at present in Newcastle-under-Lyme. Sanitary ware.

BAKER & CO., LTD., Fenton. General earthenware.

BAKER, BEVANS & IRWIN. The "Glamorgan Works" at Swansea were started in 1814 by a company of which Haynes was the leading spirit, and who in 1816 traded under the name of Baker, Bevans & Irwin. The firm lasted until 1839, when they were bought out by Dillwyn, and the works sold to an iron merchant in 1840.

BALL BROS., Sunderland. Brown and yellow earthenware.

BALL, ISAAC, Burslem, 1710-1715. Moulded wares.

BALL, RICHARD, Burslem, 1802.

BALL, THOS. SANDERS. Partner with John Ridgway in the establishment of the Architectural Pottery Company's works at Poole, Dorset.

BALL, WM. Established the Diamond Hall Pottery at Deptford in 1857.

BALLARD, PHILIP. A figure painter who worked for Randall at Madeley, Salop. Brother to T. Ballard, R.A.

BALLS. Painter of Lowestoft.

BAMBOO WARE. A buff-coloured porcelain biscuit, often decorated in parts with blue, turquoise and other enamel, made by Turner. This was also called cane ware. A similar class of wares were made by Wedgwood and others, but Turner claimed to have introduced them.

BAMFORD, JOHN, Nelson Place, Hanley, 1850-1880. Stoneware and Parian.

BANCROFT. A painter of flowers, insects, etc., at the Chelsea-Derby Works.

BANFORD, BERENICE, wife of James Banford. A china painter who worked for the Derby Factory at her own home. She was previously employed at Wedgwood's Chelsea Works, and appears to have been the subject of a protest by thirteen painters and gilders against the employment of women painters at the Derby Works.

BANFORD, JAMES. A clever painter of flowers, insects, etc., who was employed at Derby about 1793.

BANKS, the sculptor, modelled for Wedgwood, Chelsea, and Coade of Lambeth.

BANKS, with Mr. Coke carried on the Pinxton Works after Billingsley left them.

BANKS, NEHEMIAH. Proprietor of the Hill Top Works, Church Gresley, in 1870.

BANKS & THORLEY, Hanley, 1873-1880. Majolica, terra-cotta, jet and stonewares.

BANKS & TURNER, Stoke-on-Trent, prior to 1780, in which year Josiah Spode occupied their factory.

BARKER. A painter of shells for Messrs. Flight & Barr of Worcester.

BARKER. A firm was trading in earthenware under the name of Mort, Barker & Chester at Burslem in 1802.

BARKER BROS., Meir Works, Longton. China.

BARKER, JOHN. One of Whieldon's apprentices, who, together with his brother, entered into partnership with Robert Garner, also Whieldon's apprentice, about 1750, and commenced the manufactory of shining black and white stoneware, and salt glaze at the Row Houses, near the Foley, Fenton, and where they afterwards made cream colour. Some examples of Garner's make are preserved in the Stoke Museum. The descendants of the brothers Barker, potting under the same style, took the Gold Street Works, where gold lustre was said to have been first used.

BARKER, PETER, son of Joseph Barker who came from Staffordshire to manage the Swinton Pottery. In 1804 he took the "Mexboro Old Pottery," established in the latter half of the eighteenth century by Messrs. Sowter & Bromley. The works were continued by the brothers Peter & Jesse Barker, who were succeeded by Samuel Barker, son of Jesse, until 1834, when the brothers acquired the Don Pottery, and Samuel continued the Mexboro Pottery until 1844, when the works were discontinued.

BARKER, RICHARD, Lane End, about 1815. China.

BARKER, SAMUEL. See Don Pottery. A Samuel Barker was potting in Lane Delph in 1810.

BARKER, WILLIAM, Lane End, 1786.

BARKER (& WOOD), Queen Street, Burselm, about 1890. Earthenware of good quality.

BARKER, BATTY & READ, about 1890-1905, now the "Rubian Art Pottery".

BARKER, SUTTON & TILL, Sytch Pottery, Burslem. Miscellaneous earthenware, blue-printed and dipped goods, about 1830. In 1850 the style was changed to Till Bros., and

is now T. Till & Sons. A good and varied class of earthenware was, and is still made.

BARKERS & KENT, LIMITED, Foley Pottery, Fenton. Earthenware and fancy goods.

BARLOW, HANNAH B. An extremely skilful delineator of animals, worked first at Minton's Art Pottery Studio in the early seventies, and afterwards at Doultons, Lambeth. Her monogram is given. She is assisted by a brother, Arthur B. Barlow, and a sister, Florence Barlow, whose monograms are also given.

BARLOW, THOMAS, succeeded Cyples & Barker at the Market Street Pottery, Longton. Said to be the oldest works in the town. For many years Egyptian black and lustre wares of superior character were made here—these latter impressed with the letter B in the body. China is also made.

BARLOW & HAMMERSLEY, Hanley, 1820.

BARNES, GEORGE. Established St. Gregory's Pottery in High Street, Longton, in 1794. The business was successively worked by Barnes & Wood, Wood & Blood, Mr. Chesworth, Beardmore & Birks, G. Townsend, and Tams & Lowe, and is continued by Mr. William Lowe. China and earthenware of good average quality is made. The usual mark is a garter with the words "Staffordshire Improved" enclosing the name of the pattern and a Staffordshire knot. The garter is surmounted by a crown, and beneath are the initials of the firm, T. & L.

BARNES, ZACHARIAH. A maker of delft ware in Liverpool. See Liverpool.

BARNS, WILLIAM, appears in two lists of burgesses and freeholders of the town of Nottingham (dated respectively 1774 and 1780), as a pot maker in Barkergate.

BARNSTAPLE ART POTTERY. Decorated grotesque and motto wares. See Brannam.

BARR. See Worcester.

BARROWFIELD POTTERY, near Glasgow. Established in 1866 for the manufacture of stoneware. Mr. Henry Kennedy, the owner, makes "glass-lined bottles and jars" and "glass-lined stonewares" in large quantities. The mark is three bottles beneath a ribbon bearing the words "Established 1866".

BARRY & CO., Woodville. Tiles and sanitary ware.

BARTON, RICHARD. A modeller at the Chelsea Factory subsequent to 1770.

BARUM. See Brannam.

BARWICK, JOHN. Partner in the Leeds firm, 1783-1800. See Leeds.

BASFORD, J. P. Proprietor of the Dalehall Tile Works about 1880.

BATES & BENNET, Cobridge. General earthenware.

BATES (BRIDGETT & BATES). See under that title.

BATES, ELLIOT & CO., BATES, GILDEA & WALKER, GILDEA & WALKER, Dalehill, Staffordshire. Three of the many styles under which the factory founded by Joseph Stubbs was carried on. See Stubbs.

BATHURST. Successor to W. Pierce & Co. of Bethnal, Shropshire.

BATHURST, H. M. Manager of the Broseley Tileries about 1880.

BATHWELL. Partner in Messrs. Goodfellow & Bathwell of the Overhouse Works, Burslem.

BATKIN, W. Partner in Messrs. Bailey & Batkin of Lane End.

BATKIN & BOOTH. Occupied the Waterloo Works, Stafford Street, Longton, in 1815. They were justly celebrated for their gold and silver lustre, but are perhaps better known by the later style of the firm, Bailey & Batkin (which see).

BAT PRINTING. The process of "bat" printing is as follows: An engraving is made upon copper, in stipple; the plate after being carefully cleaned is coated with linseed oil, the superfluous oil being removed from the surface of the plate by the palm of the hand, as in the printing of an etching, leaving the oil only in the engraved portions. A thin slab or "bat" of soft glue is applied to the plate with slight pressure, taking an impression in oil instead of pigment. This forms the transfer which is applied to the ware. It is then dusted with the colour required, a piece of cotton-wool being used for this purpose. The process is still in use at Mintons and other firms.

BATTAM. Art Director at Copelands, 1850-1868.

BAXTER, THOMAS. An extremely able figure painter who was working at Worcester from 1814 to 1816 and from 1819 to 1821. A rectangular plaque in the British Museum (Y. 86) painted with a scene from Shakespeare's *Midsummer Night's Dream*, marked "Flight, Barr & Barr, Royal Porcelain Works, Worcester. London House, 1 Coventry Street," is probably painted by Baxter, who also worked for Swansea.

BAYLISS, DR. The largest of the original shareholders in the Worcester Works.

BAYNES, JOHN, in 1789 patented "an improvement in the form and construction of soup ladles, tureens, gravy spoons, ladles and skimmers".

BEAR JUGS. These were made during the seventeenth and eighteenth centuries and used in taverns throughout the country. The head was removable and formed a cup. The black and white ones, the latter salt glazed and coated with rough scraps of clay, were made at Chesterfield (Derbyshire) and Staffordshire; the brown variety at Nottingham.

BEARDMORE, EDWARD, of Rode Heath. A skilful potter who made many improvements in bodies of glazes.

BEARDMORE, FRANK, Fenton. Occupier of the factory successively worked by Mason, Minton Taylor, Forester &

Hulme, and Hulme & Christie. A maker of commercial wares of an artistic character.

BEARDMORE, FRANK, & CO., LTD., Sutherland Pottery, Fenton, Staffs.

F. B. & CO.
F.

BEARDMORE, THOMAS. Established the Heathcote Road Pottery, Longton, in the early part of the nineteenth century.

BEARDMORE & BIRKS. See Barnes, George.

BEATTIE, JAMES. Modelled many busts and statuettes for Copelands, Wedgwoods, Bates, Walker & Co. and others.

BEAUCLERC, CAPTAIN. At the exhibition of 1851 were two large vases of his modelling, made at Castle Espie, Co. Down.

BECK. Partner with Davenport (Davenport, Beck & Co.) from 1873 at Castle Field Pottery, Etruria. Fancy "antique" goods were made, majolica jet, terra-cotta water bottles, and toilet, tea, desert and trinket wares. The mark is a castle, and the letters "D. B. & Co. ETRURIA" within an oval garter, bearing the words TRADE MARK.

BEDDOW. A painter of landscapes at Swansea.

BEDFORD & RICHMOND. Proprietors of the Newhill Pottery, Wath-upon-Dearne, Yorkshire, established by Joseph Twigg in 1822.

BEDSON & RHODES. Potters in Burslem in 1818.

BEECH, ARTHUR. See Adams (Beech & Adams).

BEECH, H. A maker of butter pots at Burslem about 1710. A salt glazed dish in the Mayer Museum, Liverpool, is impressed "BEECH". See Salt Glaze.

BEECH, J., & SON, Longton. Succeeded by Chapman & Sons. See Atlas China Co., Ltd. J. B. & S.

BEECH, JAMES, is mentioned by Ward as having two manufactories in Tunstall in 1842, and is known to have occupied the Lion Works, Sandyford, in 1821, in partnership with Abraham Lownds, who retired in 1834. About 1845 Beech himself gave up business.

BEECH & HANCOCK. Manufacturers of lustre wares at Tunstall. Successors to above.

BEECH & JONES occupied Wedgwoods "Bell Works" from 1836-1839, and continued by Mr. Beech until 1853, when he took into partnership Mr. Brock, who retired two years later. It was carried on until 1876 by Messrs. Beech & Podmore, when the works were purchased by the Board of Health, and a covered market built on the site.

BEECH & PODMORE (see above) of the Bell Works, moved to the Bleak Hill Works at Cobridge in 1876. They made at Cobridge ordinary china and Parian chimney ornaments.

BEELEY. An alias or "nickname" of William Billingsley, adopted after leaving Torksey. See Billingsley.

BEEVERS. Partner in Beevers & Ford of Mexborough, near Swinton, at the latter part of the eighteenth century. Made a common class of ware. The firm was afterwards Ford, Simpson & Beevers, who made household ware. The manufactory afterwards changed hands to Messrs. Reed & Taylor. About 1840 it was worked entirely by Mr. John Reed whose son still carries on the concern.

BELFAST. A pottery was established in Belfast towards the close of the seventeenth century. An account of it was published in London in 1702 by a governor of the Isle of Man,

Dr. William Sacheverell, who made a visit to Iona in 1688. It is also referred to by Sir Thomas Molyneux, Bart., who visited it in 1708 and who mentions "a very good manufacture of earthenware which comes nearest to delft of any made in Ireland, and really is not much short of it". There was also a pottery established by Victor Coates for the manufacture of china, working in 1793, as in that year the partners presented a petition to Parliament praying for pecuniary aid, the high price of coals preventing them from making their productions remunerative.

BELFIELD & CO. occupied one of two old potteries in Prestonpans in the year 1836 and produced Rockingham tea-pots, cane jugs, etc.

BELL, CHARLES, Burslem, about 1800.

BELL, J. & M. P., & Co., LTD., Glasgow, established 1842. Large manufacturers of earthenware, Parian, etc.

BELL, JOHN, the sculptor. Modelled statues for the Copeland firm.

BELL, SAMUEL. A Staffordshire potter who took out a patent in 1729 for a method of making red marbled stoneware to imitate ruby.

BELL, SARAH, Stoke, 1786.

BELL, WILLIAM. See Bellevue.

BELL, DEAKIN & PROCTOR. Peel Pottery, Longton.

BELLARMINES or "Greybeards". Grey stoneware jugs, having a bearded mask in front, underneath the spout. A common article of use in taverns during the sixteenth and seventeenth centuries. They were made in large quantities in Germany and the Low Countries and exported to this country and elsewhere. Numbers were doubtless made in England. They derived their name from some fancied resemblance in the mask in front to Cardinal Robert Bellarmin who became popular on account of his determined opposition to the Reformed Church in the Low Countries.

BELLEEK. A porcelain works was established in 1857 in the neighbourhood of Belleek, near Lough Erne, County Fermanagh, Ireland. The pottery owed its inception to the existence of large quantities of felspar in the district. Belleek ware is a Parian body covered with metallic lustres. The ware is "cast" extremely thin, and generally fashioned in the forms of shells and other marine objects. Mr. W. H. Goss of Stoke-on-Trent was the first to produce this class of ware, but it met with scant commercial success. In 1863 Messrs. D. McBirney & Armstrong of Belleek attempted to produce

BELLEEK, FERMANAGH.

it, but were unsuccessful until they engaged Goss's foreman, William Bromley, and a clever one-armed modeller, William

Gallimore. It then rapidly became popular. Gallimore returned to the potteries, and Bromley went to America. The lustres were invented by a Frenchman, one Brianchon, who protected his discovery by patent in England, France and Germany. The English patent is dated 8th July, 1857. The Belleek factory purchased the lustres from France. The best-known mark is that with the dog, harp and tower, with the word Belleek on a ribbon. In the Bethnal Green Museum is a salt cellar with this mark printed in blue and the words "BELLEEK, FERMANAGH" stamped. A harp with crown occurs on some pieces.

BELLEVUE POTTERY, Hull. Jeremiah and James Smith executed a deed of partnership between themselves and Job Ridgway (see Ridgway) for the manufacture of pottery at Hull. It only existed from 1802 to 1804, when Job Ridgway retired. In 1806 the business was transferred to Job and George Ridgway, who carried it on for some years. William Bell succeeded them in 1826, and in 1841 the business was sold by auction. The productions were green glaze, plain earthenware and blue printed. They were the makers of the "Crow Isle" and "Paul Jones" dinner service. The mark was two bells, sometimes accompanied by the inscription "Bellevue Pottery, Hull".

BELL WORKS, Burslem. Once occupied by Wedgwood.

BELL WORKS, Hanley. Once occupied by William Ridgway, and now by Messrs. Clementson Bros.

BELPER. See Denby.

BENNETT. Manufacturer of ordinary earthenware at Sneyd Street, Burslem, prior to 1860.

BENNETT, GEORGE, & CO., Victoria Works, Stoke-on-Trent. Earthenware. G. B. & CO., STOKE.

BENNETT, WILLIAM, Cleveland Works, Hanley, Staffs. Earthenware.

W B H

BENSON. Took out a patent in 1726 for a new method of grinding flint stone in water. Iron mortars had been previously used, and the dust was greatly injurious to the health of the operators. Astbury immediately adopted Benson's method, and erected a mill at the Ivy House, near Hanley.

BENTHAL, Shropshire. A manufactory was established by Mr. John Thursfield, at Benthal, near Broseley, in 1772, the clay beds of the district being exceptionally fine. It was afterwards carried on by the son of Mr. Thursfield in partnership with his brother-in-law, Mr. W. Pierce, under the style of W. Pierce & Co., and about 1818 it passed into the hands of a Mr. Bathurst. Messrs. Maw & Co. have now a tile works here. See Maw & Co.

BENTLEY, G. L., & CO., LTD., Cyples Old Pottery, Longton, Staffs. China. G. L. B. & CO., LONGTON.

BENTLEY, ISAAC. Manager of a manufactory of porcelain at Burton-on-Trent established about 1839, by a Derby lawyer, Mr. William Edwards. The concern lasted for about seven years.

BENTLEY, JOSEPH. A painter from the Derby Works, subsequently employed at the factory at Burton, above mentioned.

BENTLEY, THOMAS. A Liverpool merchant of the firm of Bentley & Boardman. Born at Scrapton in Derbyshire on

New Year's Day, 1730. He had acted as the agent of Josiah Wedgwood in Liverpool, when, in 1767 he became Wedgwood's partner, an arrangement which lasted until his death in 1780. The voluminous correspondence between Wedgwood and Bentley forms perhaps the most important contribution to the history of potting in Staffordshire during the eighteenth century. See Wedgwood.

BERKS, GEORGE. Modeller to the Minton firm about 1836.

BERKS, J. & W., Lane End, about 1802. Earthenware.

BERWICK, JOHN. One of the original potters in the Worcester Works. He was employed on the "Worcester Tonquin Manufacture".

BESCHE, LUCIEN. A figure painter of considerable talent employed at Mintons and Copeland's. He migrated to London, and confined himself to "black and white" and painting in oils. His china painting is comparatively scarce, and commands high prices.

BESWICK, J. W., Longton. Manufacturer of majolica, etc.

BESWICK, ROBERT. Built the Church Bank Works at Tunstall in 1842.

BEVINGTON. Manager at Swansea. See Swansea.

BEVINGTON FAMILY. The Bevingtons are a remarkable instance of a family of potters. About 1870 there were four brothers potting at separate works in Hanley. They were all prosperous at some period of their career, but all, for some reason, failed. Two of the brothers, at least, manufactured imitations of old Sevres and Dresden on a large scale, and these imitations were undoubtedly sold very largely as genuine pieces, though it is not inferred that the manufacturers put them on the market as genuine.

BEVINGTON, AMBROSE. Manufactured general earthenware at the New Hall Works from about 1870-1890.

BEVINGTON, JAMES. China vases, statuettes, tea and dessert wares. Occupied variously the New Street Pottery

and the High Street Pottery (previously worked by E. Mayer). Brother of above.

BEVINGTON, JOHN. Another brother. Worked various factories, and ultimately the Kensington Works, Broad Street, Shelton. Made earthenware and china, chiefly fancy articles.

BEVINGTON, THOMAS, Burton Place Works, Hanley. Made from 1870-1885 very large quantities of fancy china, chiefly "flowered" ware with modelled flowers in high relief. Originated the "lotus" ware, afterwards carried to great perfection by Bernard Moore. Thomas Bevington also made the "mossed" china, which was artistically vile, but commanded a large sale. He, however, made some good wares, and employed for some years the modellers Gallimore and Rowland Morris.

BEWICK, THOMAS. It is interesting to know that wood engraving has been applied to pottery. At St. Anthony's Pottery, one of the oldest potteries for fine ware on the Tyne, printing (probably by the glue process) was done from Bewick's wood engravings. Specimens are, however, very rare. See Newcastle-on-Tyne (Sewell & Donkin).

BIDEFORD, Devon. The Bideford Old Pottery has been worked by the Crocker family for the best part of two centuries. In 1870 Mr. W. H. Crocker rebuilt the place and improved the productions, which had previously consisted of garden vases, chimney pots, etc. One of the chief specialities of the pottery has been, and still is, the fire-clay bread ovens which are made of a peculiar shape to retain the heat and to distribute it evenly upon the bread in every direction. These ovens have been for many years in great repute in Cornwall, Devon and the Southern districts of Wales, and the bread baked in them is said to have a sweeter flavour than that baked in ordinary ovens. They are simply ornamented with incised or impressed lines and are marked W. H. CROCKER
BIDEFORD.
Jugs, flower-pots, vases, etc., are also made.

BIG HOUSE, Burslem. The two sons, Thomas and John, of the second Aaron Wedgwood of Brown Hills, set up in business on their own account about 1740. They erected in 1750 a large dwelling-house adjoining their manufactory which they called the Big House. This was afterwards occupied by Thomas Wedgwood (cousin to Josiah) who manufactured cream-colour and china glazed ware painted with blue.

BILL, JOHN, Lane End. Earthenware. Died 1836. His productions are little known.

BILLING, THOMAS, Staffordshire, was granted a patent in 1722 "for making the most refined kind of earthenware of a nature and composition not only transparent, but so perfect of its kind, as contrary to the nature of all other earthenware, to resist almost every degree of heat".

BILLINGS & HAMMERSLEY, 1802.

BILLINGSLEY, WILLIAM. An artist of considerable reputation, whose flower paintings are in great request. He worked variously at Pinxton, Worcester, Nantgarw, Swansea and Coalport. He was apprenticed at the Derby Works in 1774. About 1796 he was at Pinxton. He appears to have been a capable potter as well as a painter, for on his leaving the Pinxton Works in 1801 the porcelain there manufactured deteriorated considerably. From 1808-1811 he was employed at Worcester, when he, in conjunction with George Walker, established a small porcelain works at Nantgarw, near Cardiff. Here they made a soft and very translucent porcelain. The works was removed to the Cambrian Pottery at Swansea, where the same class of porcelain was manufactured until 1817. The venture does not seem to have been very successful, for the Nantgarw plant was never completely removed to Swansea, and Rose of Coalport bought both works in 1820. Billingsley then moved to Coalport, where he worked as a flower painter until his death in 1828. He was familiarly known as "Beeley". See Nantgarw and Swansea.

BILTONS, LTD., London Road Works, Stoke-on-Trent. Terra-cotta, jet and teapots. BILTON.

BINGHAM, E. See Royal Essex Pottery.

BINGLEY, THOMAS, & Co. See Rockingham.

BINNS, CHARLES FERGUS, son of Richard William Binns of Worcester. Author of *The Story of the Potter*, *Ceramic Technology*, and other works. Born at Worcester in 1857. Mr. Binns is now in America, where he occupies several important posts in connection with ceramics. He was president of the American Ceramic Society in 1901.

BINNS, R. W., F.S.A. In 1862 Mr. Binns conducted the Worcester Pottery with Mr. W. H. Kerr, under the style of Kerr & Binns. A Joint Stock Company was formed, and Mr. Binns took up the post of Art Director, which he filled with credit and distinction. The much-imitated ivory porcelain was produced under his direction, as also were the famous enamels of Bott. The prestige of Worcester was worthily upheld during his directorship, and many special decorations were produced. Mr. Binns has contributed many valuable papers to the literature of ceramics, and his work *A Century of Potting in the City of Worcester* is the most important contribution to the subject. See Worcester.

BIRBECK FAMILY. Noted as ceramic painters. Joseph Birbeck was a painter at Coalport, William Birbeck was well known as a painter of birds in the Dresden and Oriental styles at Mintons, and Joseph Birbeck, the younger, at present employed at Cauldon Place, has a high reputation for his paintings of landscapes, birds and fishes.

BIRCH, Hanley. An imitator of Wedgwood. He made "Egyptian" stoneware and jasper. About 1800 he joined Birch & Whitehead, manufacturers of cream-ware and blue, but continued his own works also. The name Edmond John Birch occurs on a map of potters at Hanley in 1802. The initials E. I. B. and also the name Birch appears on his ware. BIRCH

BIRD, DANIEL, Stoke-on-Trent. Bird's factory was at Cliff Bank. He was known as the flint potter, through having ascertained the exact proportion of flint required in the body to prevent crazing. He was succeeded by T. Manger.

BIRKS, RAWLINS & CO., Vine Pottery, Stoke-on-Trent. Make china of first rate quality for ordinary domestic use. Although no richly decorated wares are made, the decorations by Mr. E. G. Reuter and others are of the best type.

BIRKS, THOMAS, & CO. Made china, earthenware and gold and silver lustre of ordinary quality at High Street, Longton, between 1870 and 1880.

BISHOP AUKLAND. The "New Moor" Pottery is situated at Evenwood, near Bishop Aukland. Brown ware is made here.

BISHOP & STONIER, Stafford Street, Hanley, Staffs. The successors to Livesley, Powell & Co., succeeded in 1865 by

"Bisto."

"Bisto."

L. P. & CO.
P. B. & S.
P. & B.

Powell & Bishop. They make both china and earthenware of

excellent quality and well decorated. They have three potteries —the Stafford Street Works, formerly Reuben Johnson & Co.; the Church Street Works, once occupied by William Ridgway, and the Waterloo Works.

BLACKFRIARS ROAD. Here are the terra-cotta works of Messrs. M. H. Blanchard, Son & Co., established in 1839 by Blanchard who served his apprenticeship with Coade. Messrs. Blanchard manufacture every description of architectural terra-cotta and statuary, and have received high awards at various International Exhibitions. They executed, among other commissions, the terra-cotta for the Brighton Aquarium, the South Kensington Museum, the columns of the Arcades in the Royal Horticultural Gardens, and the enrichments of the façade of the Wedgwood Institute, Burslem.

BLACKHURST, JABERY, Sandyford. Ordinary earthenware, latter part of the last century.

BLACKHURST & BOURNE. Potters at the Hadderige, Burslem, about 1870.

BLACKWELL, JOSEPH, Cobridge. Blue and white stoneware, cream and painted wares, about 1786.

BLACKWELL, JOHN. Wares similar to the above, 1786.

BLACKWELL, JOHN & ANDREW, Cobridge. Doubtless successors to above, were making blue printed and general earthenwares in 1818.

BLAIR & CO., Beaconsfield Pottery, Anchor Road, Longton, Staffs. China.

BLAKE, Mr. Carried on the Welshpool and Payne Potteries at Brampton in Derbyshire in the eighteenth century, making stonewares, tobacco jars, puzzle jugs, filters, etc. Succeeded by his widow. Chaffers refers to a brown

ware posset pot in the Bagshawe collection, made at Brampton and dated 1744.

BLAKEWAY. See Coalport.

BLAKEY, WILLIAM. Ouseburn Pottery, 1860.

BLANCHARD, SON & CO. See Blackfriars Road.

BLASHFIELD, J. M. Mr. Blashfield until 1851 was engaged in London in the manufacture of cements and scagliola, and in the laying of tesselated pavements. He bought from Coade and others a number of models and moulds which he removed in 1858 to Stamford, in Lincolnshire, where he established a large manufactory for terra-cotta, etc.

BLOOD, JOHN. A painter at the Derby Works.

BLOOR, ROBERT. Was proprietor of the Derby China Works from 1811-1846. See Derby.

BLY, JOHN. A painter at Lowestoft.

BLYTH PORCELAIN CO., LTD., Blyth Works, High Street, Longton, Staffs. China.

BODEN, HENRY. Flower painter at Caughley.

BODEN, JOHN, Tunstall. Earthenware, 1818.

BODLEY, E. F., & CO., Burslem, Staffordshire. Earthenware. Closed in 1900.

BODLEY, E. J., New Bridge Pottery, Longport. Earthenware. Succeeded by Dunn, Bennett & Co.

BODLEY, E. J. D. Was the last successor to the china portion of the Hill Pottery. He commenced business about 1875, and continued for fifteen or sixteen years, making china of a superior kind, well painted and decorated.

BOLINGBROKE, Lincolnshire. A pottery existed here in 1693. Houghton, writing at that date, speaks of "the blue clay of the Bolingbroke Pottery". Nothing is known regarding its productions.

BOLTON, JAMES & FLETCHER, Warrington, about 1797. Took as partner one of Wedgwood's pupils, Joseph Ellis of Hanley. The firm made blue and white printed and black ware of an inferior quality and became bankrupt in 1812. The wares are unmarked.

BONE, HENRY, was apprenticed to Richard Champion of Bristol in 1772, and was elected member of the Royal Academy in 1811. He was appointed miniature painter to George III.

BO'NESS. One of the largest potteries in Scotland. The Bo'ness Works date from 1766. They were established by an Englishman named Roebuck, who was connected with the coal and iron trade of the district. The works were purchased by a Mr. Cowen, and in 1779 by Mr. Alexander Cumming. The present firm has a large punch bowl made in the time of Mr. Cowen, and dated 1794. It is inscribed:—

> What art can with the potters art compare?
> For of what we are ourselves, of such we make our ware.

In 1836 the works passed into the hands of Mr. James Jamieson, and in 1854 Mr. John Marshall took over the works. In 1867 he took into partnership Mr. William MacNay, and traded under the style of John Marshall & Co. The productions are ordinary domestic wares, printed, painted and enamelled. Many interesting patterns have been produced, especially in printed blue. About 1890 the works were closed for a time, and some of the plates and moulds sold. Messrs. Brownfield purchased several plates, and one, re-christened the "Bo'ness" pattern, had a great vogue. At the breaking up of the Brownfield Guild, this was copied by many makers, and quantities are now sold. The Bo'ness Works were re-started, and are still in business.

BOOTE, THOMAS & RICHARD. The Waterloo Potteries,

carried on in the latter part of the eighteenth century by Walter Daniel, and later by Joseph Machin and Jacob Baggaley, were purchased in 1850 by Messrs. T. & R. Boote. In 1843 Messrs. Boote had taken out a patent for "certain improvements in pottery and mosaic work," and in 1857 another was taken out. Both these patents were applied to the production of pottery in coloured and inlaid clays, and interesting results were obtained. Messrs. Boote also produced Parian wares of considerable excellence, in vases, jugs and statuary. They have discontinued the manufacture of these decorative goods for more than thirty years, and now manufacture encaustic and richly glazed tiles, chiefly for the American markets.

T. & R. BOOTE, LTD., The Patent Tile Works, Burslem, Staffs.

Other marks are :— T. & R. BOOTE
ROYAL PREMIUM
IRONSTONE

On tiles :— T. & R. BOOTE
BURSLEM in raised letters.

On white granite—the initials T. & R. B. impressed.

BOOTH. See Batkin & Booth.

BOOTH, ABEL. Succeeded Martin & Copeat the New Market Works, Longton, in the manufacture of china and lustre. 1828-1840.

BOOTH, ENOCH, Tunstall. Commenced business about 1750. The name "Enoch Booth" appears on a large dish dated 1757. He is credited with being the first to introduce fluid glaze. He was succeeded by his son-in-law, Anthony Keeling.

BOOTH, EPHRAIM, Stoke, 1818. Blue-printed wares. Brother of Hugh Booth, next mentioned.

BOOTH, HUGH. Potter at Cliff Bank in 1786, described in the topographical survey of that year as "maker of china, china glaze and Queen's ware in all its branches". The factory was subsequently occupied by Adams.

BOOTH, HUGH & JOSEPH. Sons of Ephraim Booth, and associated in the business.

BOOTH, RICHARD. Succeeded Ralph Salt at the Brook Street Works, Hanley, and he here produced a similar kind of painted toys and small figures to Salt until 1860.

BOOTH, THOMAS, & SONS. Occupied the New Hall Works from 1872-1880.

BOOTH, WARD. A Staffordshire man, who went with "a whole regiment of hands" to work at the New Don Pottery.

BOOTH & CO. Makers of red ware with figures, etc., in low relief. Sometimes the figures were in black on a red ground. Mark:—

PUBLISHED BY G. R. BOOTH & CO.
HANLEY, STAFFORDSHIRE

with a date which varied. There are examples in the Burslem and Liverpool Museums.

BOOTH & MARSH. Made china in Shelton from about 1793-1807.

BOOTHS, LIMITED, Church Bank Works, Tunstall. This manufactory (formerly worked by Turner & Tomkinson) was taken by T. Booth & Son in 1870. The firm previously occupied the Knowles Works (from 1864) under the style of Evans & Booth. In 1868 it was Thos. Booth & Co., in 1872 T. G. &

F. Booth. Messrs. Booth make earthenware of a very superior quality and decoration.

T. B. & S.

BOREMAN, BOWERMAN, or BOWMAN, as he is variously spelt, was a painter at Chelsea and afterwards at Derby. Marryat, in his *History of Porcelain*, spells his name Beaumont.

BOSWORTH, MARKET. Here is a manufactory for the production of ordinary terra-cotta goods.

BOTT, THOMAS. A painter at Worcester whose speciality was the production of works in white enamel on china after the style of the Limoges enamels. They command very high prices and are much valued by connoisseurs. Mr. Bott's eldest son, Mr. John Bott, is now Art Director at Coalport.

BOULLEMIER, ANTONIN. An able figure painter, educated at Sevres, and employed by Mintons, 1871-1900. His work was finished and delicate, and is much esteemed by collectors.

BOULTON, MACHIN & TENNANT, Swan Bank Pottery, Tunstall, Staffs. Successors of Beech & Hancock. Makers of blue-printed and similar wares. Now out of business.

B. M. & T.

BOURN, JOHN. Was potting in Burslem in 1770.

BOURNE, CHARLES. Maker of lustres and chimney ornaments at the Foley about 1815.

BOURNE, EDWARD, Junior. Was potting in Burslem about 1800.

BOURNE, JOSEPH, & SON. See Denby.

BOURNE, JOSEPH WALKER. Established the "Pool Works" for terra-cotta, fire bricks and sanitary tubes, at Woodville about the year 1830.

BOURNE, SAMUEL. Designer-in-chief to the Minton firm from 1840-1860. He served his apprenticeship with Wood & Caldwell, and in 1847 was appointed Professor of Ceramic Design at Marlborough House.

BOURNE. See Pinder, Thos.

BOURNE VALLEY, Dorset. Worked by Messrs. Standing & Marten. Glazed stoneware, sanitary pottery, and terra-cotta figures, vases and architectural fittings are made.

BOURNE, W. Commenced the manufacture of Derbyshire ironstone cane ware at Church Gresley in 1816.

BOURNE & LEIGH, Albion Pottery, Burslem. Earthenware manufacturers, formerly Blackhurst & Bourne. Mark, a ribbon enclosing the initials given, surmounted by a crown.

E. B. & J. E. L.

BOURNE, BAKER & BOURNE, Fenton, end of the eighteenth century. Earthenware. In 1802 the firm was Bourne & Baker, and afterwards Bourne, Baker & Bourne. In 1843 it was carried on by William Baker alone. Mr. Edward Challinor joined the business about 1870, and while the style of the firm was not changed, another branch was established under the name of Challinor & Co. in the factory built by Mason.

BOURNE, NIXON & CO. Mentioned by Shaw as potting in Tunstall in 1829.

BOURNE (TINSLEY & BOURNE). Occupied the Queen Street Works, Burslem, from 1874-1878.

BOVEY POTTERY CO., LTD. Established during the last years of the eighteenth century by one Mead, for the production of earthenware. In 1835 it was in the occupation of John and Thomas Honeychurch, who in the following year were gazetted as bankrupts. In 1842 the works were pur-

chased by Messrs. Buller & Divett, and carried on under the style of the Bovey Tracey Pottery Co. It remained in the hands of the Divett family until 1894 when it was purchased by the present company. The productions are general printed and decorated earthenware.

BOW. A porcelain manufactory was established under the name of "The New Canton" at Stratford-le-Bow, Middlesex, at some date between 1730 and 1745. The earlier history of the factory remains a matter of much speculation, and, indeed, the definite facts about the firm are mainly derived from three sources, *viz.*, a painted punch bowl in the British Museum together with a document discovered in the box which contained the bowl; a number of fragments, washers, moulds, etc., unearthed on the site of the factory in 1868, and the memorandum books, accounts, etc., of John Bowcocke, obtained by Lady Charlotte Schreiber from Bowcocke's brother.

In 1744 a patent was applied for by Edward Heylin of Bow, merchant, and Thomas Frye of West Ham, painter, for the production of a porcelain containing, among other ingredients, "an earth, the produce of the Cherokee nation in America, called by the natives *unaker*". The specification was enrolled 5th April, 1745, but it is extremely improbable that porcelain in any quantity was made under this patent.

From 1750-1762 the works were under the joint ownership of Mr. John Crowther and a Mr. Weatherby, with Thomas Frye as manager in the first instance. Frye, however, owing to ill-health, resigned his position in 1759, three years before his death. Weatherby also died in 1762, and Crowther became bankrupt a year later and his stock was sold in 1764. The factory, nevertheless, continued working until 1776, when the plant was removed to Derby, having been bought up by W. Duesbury.

A low cylindrical inkpot in the British Museum (1·61) establishes a date. It is painted with the well-known "prunus" pattern, and inscribed "made at New Canton 1750," and must

therefore have been one of the earliest pieces made under Crowther and Weatherby's proprietorship. At any rate it is the earliest dated piece of Bow china at present known.

The craft bowl is dated 1760, and a plate is extant, inscribed on the back "Mr. Robert Crowther, Stockport, Cheshire, 1770". These three pieces represent three different qualities of body and glaze, the first mentioned being the finest, the last, the poorest.

Of the numerous Bow marks the most usual is that of the anchor, with or without a cable, accompanied by one, and, in some instances, two daggers. Mr. Chaffers has pointed out that the introduction of the dagger may have arisen from the circumstance of both the proprietors being freemen of the city of London.

No. 1. The anchor and dagger appears in red on a pair of plates of raised fruit, coloured, in the Schreiber Collection.

No. 2. A variation of this mark appears on an example in the British Museum, the positions reversed.

No. 3. Also in red, the anchor placed diagonally.

A simpler variation is found in No. 4, minus the crossbar on the anchor. Victoria and Albert Museum.

No. 5. The dagger and anchor in red placed diagonally, with a horizontal dagger in blue; statuette of an actor, V. & A. Museum.

No. 6. A variation of the foregoing, the dagger and anchor upright in red, the horizontal dagger in blue.

No. 7. The anchor with cable in red, the dagger in blue (B.M.).

No. 8. The anchor with cable is also found with an upright dagger (both in red) and a horizontal dagger in blue.

No. 9. The anchor placed diagonally, with the dagger vertical across the anchor, the hilt being downwards, is found on some pieces.

No. 10. The anchor, vertical, without cable, is also found with a dagger on the left placed diagonally, surmounted by the letter B, for Bow. The B painted in blue under glaze, and the anchor and dagger in enamel red.

No. 11. A variation of the foregoing.

No. 12. The anchor and dagger was occasionally used in conjunction with an imitation Chinese seal used at Worcester. There is a plate in the British Museum (1·40) painted with panels of birds and insects having this Chinese seal mark, in under glaze blue, together with an anchor and dagger in gold.

No. 13. The initial B appears both impressed and painted. The statuette of a cook with dish of fowls, attributed to Bacon (B. M. 1·4), has a capital B impressed. The capital B painted in red occurs often—on a coffee cup painted in enamel in Chinese style (B. M. 1·53), on a mug with floral sprays and insects (1·57), and on other examples.

Nos. 14, 15, 16 and 17. The arrow with large ring on the shaft is a well-known Bow mark; it is placed pointing both upwards and downwards. It is also placed diagonally; this latter form appearing incised on one of a pair of figures of a lion and lioness (B. M. 1·11), said to be modelled by Bacon. On the companion figure is a mark which is described as a caduceus.

No. 18. The "caduceus" appears on a pair of statuettes of an actor and actress in Turkish costume (B. M. 1·9 and 10).

Nos. 19 and 20. The ring appears as the principal member, with a long shaft, a cross bar and a dot on either side.

No. 21. Also with a short shaft without the dots.

No. 22. As a cross with two dots, the ring having disappeared.

Variants of the arrow marks are:—

No. 23. A horizontal arrow with a ring in the centre of shaft.

No. 24. A variation of this without the triform head of shaft.

No. 25. A pair of crossed arrows and an annulet.

No. 26. A bow and arrow painted in red, the arrow pointing upwards.

No. 27. A bow alone.

Nos. 28 and 29. The capital T with small o is evidently the signature of the modeller Tebo, who appears to have worked for Bow as well as for Champion at Bristol, Wedgwood and

others. It occurs incised on a statuette of John Manners, Marquis of Granby (1721-1770), with sword and baton (B.M. 1·19). Also on a painted pot-pourri vase with cover, of quite elegant shape in spite of its rococo character (B.M. 1·33).

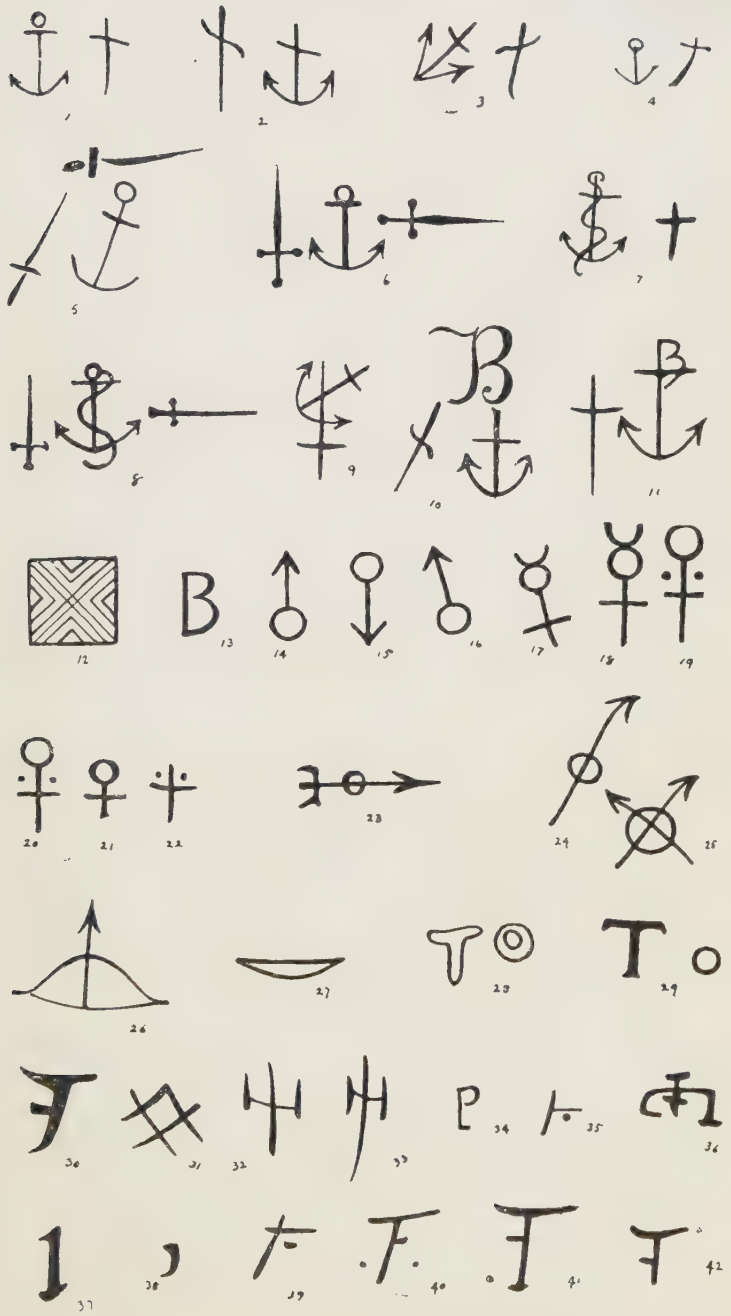
No. 30. The monogram T. F. occurs in a variety of forms, both upright and diagonally, with and without spots. It is the monogram of Thomas Frye, and must therefore belong to the earlier period of the Bow Works, previous to 1759, in which year he seceded from the concern. It also appears reversed, and this circumstance has given rise to much speculation as to whether it is Frye's signature or not. The mark is also found on at least one example of Worcester porcelain, a tureen in the Dyson-Perrins' Collection. It has, however, been pointed out that "the use of the marks of other factories on Worcester porcelain was a common occurrence, and instances could be multiplied in which the marks of Meissen, Chelsea, Sèvres and Tournay were so marked". On a hexagonal vase in blue in the Schreiber Collection, one of a pair, Frye's signature occurs. On the companion vase appears the mark No. 31.

The two marks Nos. 32 and 33 appear on a flower holder in blue in the Schreiber Collection, the marks in blue.

On a pair of vases in blue in the same collection, Nos. 34 and 35, the marks in blue.

The curious mark, No. 36, is in blue on a sauce-boat in the British Museum (1·47) painted in blue in the Chinese style. It should be remembered that all painted marks necessarily vary in some slight particular, the leading types therefore can only be given. The caduceus and the bow and arrow marks have been doubted by some writers. A large number of Bow pieces are unmarked, and many marks usually ascribed to Bow are open to question.

Nos. 39, 40, 41 and 42. Variations of Frye's signature.



BOYLE, JOHN. Partner with Herbert Minton from 1831-1836. Afterwards a partner in the Wedgwood firm. The mark M. & B. (Minton & Boyle) appears on a number of pieces. See Minton & Co.

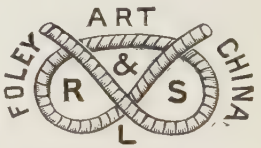
BOYLE, SAMUEL, Fenton. China. Purchased the whole of the Derby moulds, ware and plant in 1846.

BOYLE, ZACHARY, & SON. Potters at Stoke-on-Trent in 1830, at the Church Street Works, formerly owned by Adams, and afterwards occupied by Minton, Hollins & Co., who were succeeded by Walker & Carter.

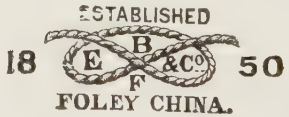
BRADLEY, FREDERICK, Sutherland Road, Longton, between 1875 and 1885. Fancy china and Parian ornaments.

BRADSHAW, WILLIAM. Established (about 1820) the St. James's Works, Longton. Good lustres were made here.

BRAIN, E., & CO., Foley China Works, Fenton, Staffs.



"HARJIAN."
England.



BRAMELD, JOHN. An excellent painter from the Rockingham Works, who afterwards became partner (about 1765) in the Leeds Pottery.

BRAMNALL, WILLIAM, and JOHN DENT. Established the Heathcote Works in Longton.

BRAMPTON, Derbyshire. At the early part of the last century there were six factories here, some of them being still worked by the same families, and date more than two centuries back. The old salt glazed stoneware posset pots, puzzle jugs and jugs with greyhound handles were made here. Jewitt

figures a piece dated 1750. Messrs. Oldfield, Madin, Wright, Hewitt & Co. established "The Pottery" in 1810, and in 1838 John Oldfield was sole proprietor. A great variety of articles have been made, including toby jugs, tobacco jars, grotesque pipes, etc. The following marks occur impressed: –

ESTABLISHED 1826

OLDFIELD & CO. MAKERS.

OLDFIELD & CO. CHESTERFIELD.

J. OLDFIELD & CO. CHESTERFIELD WATER FILTER MANUFACTURERS WHOLESALE AND RETAIL AND FOR EXPORTATION.

J. OLDFIELD.

Other factories in the district are:—

The Welshpool and Payne Potteries, Matthew Knowles & Son.

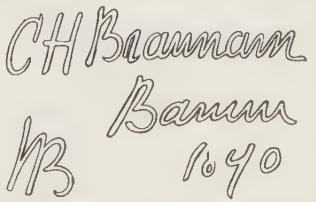
The Walton Pottery, established by William Bridden, 1790.

Wheatbridge Pottery, J. Walton Wright.

Alma Pottery, Samuel Lowe.

BRANKSEA POTTERY, Dorset. Built by Colonel Waugh. Sanitary stoneware, terra-cotta and fireclay goods are made.

BRANNAM, CHARLES H., Barnstaple. A Mr. Brannam revived the manufacture of pottery here sixty years ago, and the present representative of the family, Mr. C. H. Brannam, has produced what is known as the "Barum" ware. It is the red clay of Devon covered with an "engobe" and decorated in sgraffito or coloured slips. Rich glazes are used and the result is artistic. Sir F. C. Gould, the caricaturist, has designed a number of "Bird" jugs for the firm. The signature given is scratched on the bottom of a piece of sgraffito.



BRAY & HARRISON. Lane Delph, about 1812.

BREEZE, JESSE, Greenfield, 1815. A potter of Tunstall who owned the works formerly occupied by Adams. This factory came back to the Adams family through the marriage of one of the Adamses with the daughter of Jesse Breeze.

BREEZE, JOHN, Burslem, 1812.

BRETBY ART POTTERY. These works are under the direction of Mr. H. Tooth, whose taste and artistic skill are employed in the production of many quaint and finely modelled articles, covered with glazes of unsurpassed depth and richness. The works are at Woodville, near Burton-on-Trent.

BRIDDEN, WILLIAM. See Brampton.

BRIDGETON POTTERY, Glasgow. Here are made chemical wares, bottles, spirit jars in stoneware, and Rockingham ware teapots.

BRIDGETT & BATES, King Street, Longton, Staffs.

B. & B.

BRIDGWOOD, KITTY, & SONS, Longton, 1818.

BRIDGWOOD, MARIA, Market Street, Longton. China. 1818.

BRIDGWOOD, SAMPSON, & SON. At the commencement of the nineteenth century Sampson Bridgwood occupied the High Street Works in Longton, making china, Egyptian, black and lustre wares. From here he moved to a factory (on the site of the present Town Hall) formerly occupied by G. Forrester. Here he potted many years, finally removing to the present premises, the "Anchor Pottery," a manufactory erected in 1756 by Roger Wood of the "Ash," and occupied by a Mr. Ford. Hirstwood, formerly of Rockingham, who established (in 1838) the "York China Manufactory" in the Stonegate, bought the bulk of his china from Bridgwood, who also

made a hard and durable earthenware body called "Parisian granite," principally for importation to the United States. Bridgwood amassed a large fortune, and his sons dying without direct male issue, the business fell into the hands of a relative by marriage, a clergyman, named Walker. This gentleman spent enormous sums on experiments in the adaptation of lithography to ceramic decoration, and the works were closed about 1880, shortly afterwards falling into the hands of the Aynsley family, who now (with Mr. Bailey and others) carry on the business under the old style. The marks for china are an impressed stamp of the name S. BRIDGWOOD & SON, and also the one given below. The Parisian granite is stamped with an oval with the word "LIMOGES," and in the centre P. G.

OLD MARK

CHINA MARK

BRIDGWOOD & CLARKE. Manufacturers of earthenware at Wedgwood's Churchyard Works, 1858-1864. They also occupied the Phœnix Works at Tunstall.

BRIDGWOOD (ELKIN, KNIGHT & BRIDGWOOD). Made good blue-printed wares at the Foley Potteries in 1820. See Elkin, Knight & Co.

BRINDLEY, JOHN. Brother of the famous engineer, Thos. Brindley. Potted at Longport on the premises afterwards occupied by Davenports, but discarded manufacturing and became the agent of the Minton company.

BRISLINGTON. A village about four miles from Bristol. Here Richard Frank and his son made lustre wares of a rather inferior quality. The glaze was thin and uneven, although the lustre (made from copper) was very brilliant. Small wares

intended for cottage use were made. The works were closed in 1789.

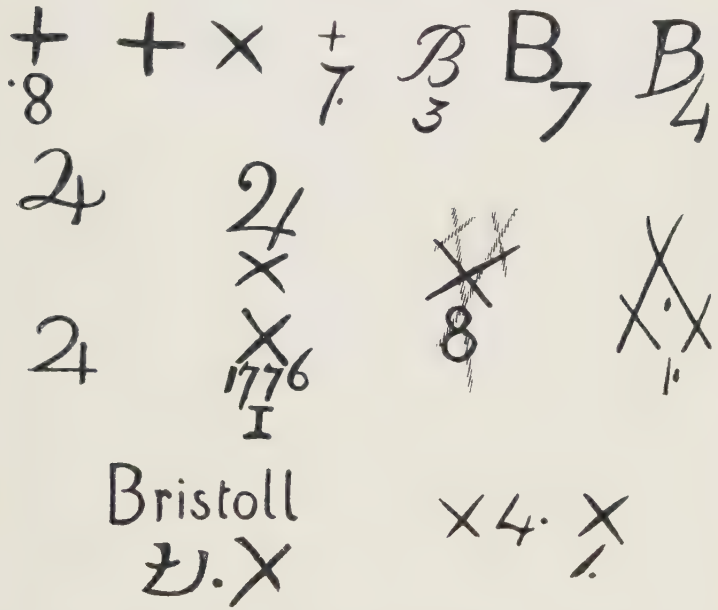
BRISTOL. Bristol is chiefly known in connection with the manufacture of Bristol "Delft," made by Joseph Flower and Richard Frank. This ware was never of high quality, the glaze possessing no brilliance and the colours being generally dull. Frank was in 1786 succeeded by Joseph Ring, who engaged Anthony Hassel, a potter from Shelton. Hassel introduced earthenware on the Staffordshire lines, and this quickly superseded the delft. See Delft.

The Bristol china works date from 1770, when William Cookworthy transferred the Plymouth business to Castle Green. This was subsequently taken over by Richard Champion who carried it on until 1781. There are, however, several marked pieces extant which have led to the supposition that a factory for the production of porcelain must have existed earlier at Bristol. Of these, a plate inscribed "J. B. 1753," and a bowl marked "F. B. January 9, 1762," are believed to have been made by John Bullan, Champion's foreman.

The china produced under Champion's management was characteristic and delicate. Many white china biscuit plaques were made with flowers in relief. One of the latter, having in the centre a bas-relief portrait of Franklin, was sold in 1874 for £165. Many statuettes were produced at Castle Green, besides a fine series of hexagonal vases painted with foliage and tropical birds. Rich table services were also made with grounds of lapis-lazuli blue and elaborate gilding surrounding panels of painted flowers, etc. The "cottage china" was thin, extremely hard and bluish white. The glaze was thin.

A coffee cup painted in colours with festoons of flowers and gilt, appears in the South Kensington Collection, the initials "I. H. 1774" in the inside on bottom. Owen (*Two Centuries of Ceramic Art in Bristol*) refers to

the tradition that this cup belonged to a service made for Joseph Harford, but thinks it more probable that it was made for Joseph Hickey, a friend of Burke, who was evidently interested in the Bristol factory.



The most usual Bristol mark is a plain cross in red, blue or neutral tint, often by itself, and often also accompanied by numerals or other devices.

The letter B both in capitals and cursive characters also occurs, this also accompanied by numerals.

The crossed swords of Meissen are found accompanied by numerals, or painted over with numerals or the letter B, or both together.

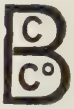
The word "Bristoll" occurs on some pieces.

The mark of the modeller Tebo also occurs on Bristol china.

The Plymouth mark (sign of tin) is found accompanied by a cross.

A teapot in the British Museum VIII., 48, is marked with a crossed L and a cross.

BRITANNIA CHINA COMPANY, Edensor Road, Longton, Staffs. Now out of business.



BRITISH ANCHOR POTTERY COMPANY, LTD., THE, Anchor Road, Longton, Staffs. Earthenware.

BROADHURST, JAMES, & SONS, Portland Pottery, Victoria Road, Fenton, Staffs. Earthenware. J. B. & S.

BROOKES, WILLIAM. A well-known engraver of Tunstall, who executed the principal patterns of Adams.

BROSELEY, Salop. Broseley is celebrated for the manufacture of tobacco pipes, made there for three centuries. There are other potteries in this village: the Benthall Pottery Co. and the Broseley Tileries Co.

BROUGH & BLACKHURST. Succeeded Batkin & Booth at the Waterloo Works, Longton, built in 1815.

BROWN, CHARLES, Foley, about 1850. China.

BROWN, ROBERT, of Cliffe Ville. A partner in the Wedgwood firm from 1846-1859.

BROWN, ROBERT, & CO., Paisley. General earthenware and plumbers' fittings. The marks are a crown and the name BROWN PAISLEY.

BROWN, SARAH, Hanley, prior to 1843.

BROWN, WESTHEAD, MOORE & CO. See Cauldon Place.

BROWNE, ROBERT. A partner in the Lowestoft Works prior to 1771. See Lowestoft.

BROWNFIELD, W. & G., Keelings Lane, Hanley. Earthenware, 1818.

BROWNFIELD, W., & SONS, Cobridge. This factory was started by Stevenson & Dale in 1780. Bucknall & Stevenson would appear to have rebuilt the works in 1808, as Jewitt gives this date as the period of erection. In 1818 the works were taken by R. & J. Clews, and a little later J. Clews took over the works himself (see Clews). Clews failed in 1829 and went to America. The works were closed until 1836 when they were re-opened by Robinson, Wood & Brownfield. Mr. Robinson died the same year, and Mr. Wood retired in 1850. Mr. Brownfield in 1871 admitted his son into partnership. The elder Brownfield died in 1873. A talented designer, Mr. L. Jahn, was engaged, and the firm produced many notable works in china, earthenware and Parian. Mr. W. E. Brownfield was unsuccessful in financial speculations and he retired from the business. His brother, Mr. Arthur Brownfield, reconstructed the firm on the basis of a co-operative pottery, under the style of the Brownfield Guild Pottery. China and earthenware of a very high grade continued to be made, but the co-operative principle did not prove successful. The works were closed about 1901.

BROWNHILLS POTTERY COMPANY, Tunstall. Formed by a syndicate of working potters, about the middle of the last century, who made earthenware of good quality and stoneware which were effectively coloured. About 1900 Messrs. Salt took over the business but retired after working it a few years. The works are now closed.

BROWNHILLS

BROXBOURNE. Mr. Pulham established his terra-cotta works here in 1843, and the Exhibition of 1851 at once brought his productions into notice. He was commissioned by the

Science and Art Department to execute the Mulready Monument, exhibited in Paris before its final erection in the Kensal Green Cemetery. He also executed a portion of the terra-cotta embellishments used in the Science Schools at South Kensington.

BRUNT, JOHN. Worked the Rawdon Pottery at Woodville (built by the fourth Marquis of Hastings) in the early part of the nineteenth century.

BUCKLEY, near Chester. A small manufactory of slip decorated ware is still carried on here. The ware is identical as regards method of production with the old slip wares, and after a few years' use would be indistinguishable from those in appearance.

BUCKLEY, JOHN, Vine Street, Hanley, 1861. In 1875 he removed to Albert Works, Victoria Place. Sanitary ware.

BUCKLEY & BENT were potters in Newcastle-under-Lyme at the end of the eighteenth century. In the Council Chamber of Newcastle are a number of interesting pieces (mainly decorated with slip) which were dug up recently on the site of the pottery occupied by the above firm. They are erroneously given in several ceramic works as Bulkeley & Bent "of Staffordshire".

BUCKLEY, HEATH & CO., Union Pottery, High Street, Burslem, Staffs. Earthenware. Now out of business.

BUCKNALL, ROBERT. A maker of mottled wares at Hol Lane about 1710.

BUCKNALL & STEVENSON. See Stevenson, Andrew.

BULLOCK, C. Mexborough.

BURDETT, PETER PEVER. An engraver who worked for Wedgwood. He introduced the process of transferring aqua-tints to pottery.

BURGESS, HENRY. Worked for some time between 1880 and 1890 the Kiln Croft Works at Burslem.

BURGESS, THOMAS, Mount Pleasant Works, Tinkersclough, Hanley, Staffs. Earthenware.

BURGESS & LEIGH, Dalehall, Staffordshire. Succeeded to the works in High Street, Burslem, formerly carried on by Thomas Hulme. In 1867 they removed to the Hill Pottery, and about 1880 they erected large works, fitted with all modern equipments, at Dalehall (Middleport Pottery). They make earthenware of a high class. The beehive mark was adopted from Samuel Alcock, who built the Hill Pottery in 1839.

BURMANTOFTS. A village near Leeds. Here are large potteries worked by the Leeds Fire Clay Co., who manufacture what is known as Burmantofts ware. The modelling has always been of a high character and the glazes rich in quality and fine in colour. For many years a great proportion of their output consisted of flower pots and pedestals, but of late they have discarded this branch and confined themselves exclusively to the production of architectural pottery, for which they are justly celebrated.

BURN, WILLIAM, Burslem, 1750.

BURROWS, JOSEPH. A maker of printed, painted and lustred wares; at the Foley, Fenton, about 1818.

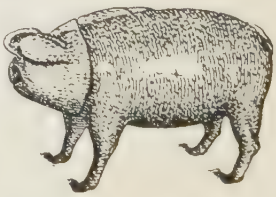
BURSLEM POTTERY CO., Scotia Works, Burslem, Staffs. Earthenware.

BURTON, WILLIAM. An excellent chemist and able ceramist. Manager of the Pilkington Tile and Pottery Co. He has contributed materially to the literature of ceramics.

BURTON-ON-TRENT. On the outskirts of Burton are many potters. Woodville, a village in the immediate neighbourhood, has long produced pottery. At Church Gresley are several tile works, and Messrs. Green make good yellow wares and have lately applied their fine marl to the production of art wares. Swadlincote, another adjacent hamlet, has several sanitary potteries and a firm producing general earthenware, the Palling Pottery Company. At Swadlincote is the well-known Ault Factory (see Ault), and at Woodville Mr. Tooth produces his quaint conceptions and rich glazes. See Bretby.

BYERLEY, THOMAS. A nephew of Josiah Wedgwood, who became his partner in 1790.

CADBOROUGH, near Rye, Sussex. Founded about the beginning of the nineteenth century or possibly a little earlier. Earthenware of an ordinary description and a few examples of ware of an artistic character were produced, but these latter were mostly for the purpose of experiment. A curious vessel, called a Sussex pig, was made here, and used at weddings in the county. The head forms the cup, and the bride's health is drunk in a *hog's-head* of beer. Specimens of Cadborough ware exist marked "Rye Pottery". In the British Museum is a flower pot and saucer of old ware (Q 7), marked "Rye (Sussex) Pottery".



CADOGAN TEAPOT. Made at Swinton in Rockingham ware from an Oriental model supplied by the Hon. Mrs. Cadogan. This pot was of the nature of a "puzzle" teapot, being filled from the bottom through a spiral tube passing inside to the top of the teapot which was closed. The pot was turned upside down to be filled, and being returned to its proper position the liquor could not spill. Examples are extant marked "Brameld & Co.," "Rockingham," "Cadogan," "Mortlock," "Mortlock's Cadogan," "Spode," and "Copeland".

CALLAND, J. K., & CO. See Swansea, Landore Pottery.

CAMBRIAN POTTERY. See Swansea.

CAMM BROTHERS, Smethwick. Decorators of tiles. Mark, CAMM BROTHERS, SMETHWICK.

CAMPBELL, COLIN MINTON. See Mintons.

CAMPBELL TILE CO., Stoke. This business was formed by Mr. Colin Campbell for the purpose of carrying on the concern of Mr. Robert Minton Taylor, who had previously conducted it at Fenton. All kinds of decorative tiles are made of a very excellent quality. The marks used by Mr. Minton Taylor while at Fenton were :—

ROBERT MINTON TAYLOR,
TILE WORKS, FENTON, NEAR
STOKE-ON-TRENT.

and

R. M. T.
F. T. W.

CAMPBELLFIELD POTTERY CO., LTD., Springburn, Glasgow.

CAPPER, JOHN, Goldenhill, latter part of the eighteenth century. Earthenware.

CAPPER & WOOD. See Wood, Arthur.

CARDIGAN POTTERIES. Established in 1875 by Mr. J. H. Miles and Mr. W. Woodward. Produce architectural decorations and red earthenware goods for domestic and horticultural purposes, glazed and unglazed bricks and tiles, coloured and paving tiles, etc. Marks used: "CARDIGAN POTTERIES," and "WOODWARD AND CO." with occasionally the word "CARDIGAN" added.

CAREY, T. & J. Made blue-printed earthenware of middling quality at the King Street Works, Longton, prior to 1850, when the works passed into the hands of John Edwards. They produced plates with the "Cottar's Saturday Night," the "Lady of the Lake," and other subjects poorly executed.

CARNALL, P. A puzzle jug in the Victoria and Albert Museum, decorated in sgraffito, red body with a coating of white slip through which is scratched the pattern in deep yellow glaze, bears the name "P. Carnall" in cursive letters, with "S. W. 1800". The name P. Carnall is, however, probably that of the recipient.

CARR'S HILL. Established by Warburton, near Gateshead, between 1730 and 1740, for the manufacture of white earthenware. Closed in 1817.

CARTER, OWEN. This potter has produced some very successful effects of ruby lustre on both matt and full-glazed surfaces. A great variety of iridescence is obtained by the vaporous method of firing.

CARTLEDGE, JAMES, Goldenhill, about 1818.

CARTLEDGE, RICHARD. Also of Goldenhill, about the same date.

CARTLICH, SAMUEL & JOHN, Tunstall, 1795.

CARTWRIGHT, RICHARD, & SON.

Made butter pots marked with their name from 1640-1675.

CARTWRIGHT 1640

CARTWRIGHT & EDWARDS LTD., Borough Pottery, Longton, Staffs. Earthenware. Established in 1869.

C. & E.

CASE, MORT & CO. See Liverpool (Herculaneum).

CASTLEFORD, near Leeds. Established by David Dunderdale about 1790. The firm (which was D. Dunderdale & Co. in 1803) made Queen's ware and Egyptian black. In 1820 the works, or a portion of them, were taken over by a number of the workmen, who carried it on for some years. They were succeeded, first by Taylor, Harrison & Co. and in 1854 by Thomas Nicholson & Co. The mark of the earlier firm is D. D. & Co., with the words Castleford or Castleford Pottery in caps.

D. D. & CO. CASTLEFORD

D. D. & CO. CASTLEFORD POTTERY.

CASTLE GREEN. See Bristol.

CAUGHLEY, Salop. These works were built by Mr. Browne of Caughley Hall on the opposite side of the Severn to Coalport. After Mr. Browne's death they were managed by a Mr. Gallimore to whom a lease of sixty-two years was granted in 1754. In 1772 Gallimore's son-in-law, Thomas Turner, succeeded him. Turner was an engraver, and was reputed to be a skilful designer and a good chemist. Thomas Minton, the founder of the Minton firm, served his apprenticeship to Turner. The well-known Willow pattern was engraved here in 1780 by Minton, who was probably the engraver of the well-known "Broseley" or dragon pattern. The early productions were little more than a semi-vitreous earthenware, but the body gradually improved. Turner visited France and brought back with him several skilled workmen. On commencing the manufacture of china at Worcester in 1788, Mr. Chamberlain bought most of his white ware from

Caughley, and there is a probability that much of the Worcester ware was printed at Caughley. About 1799 the works were purchased by Rose of Coalport and worked by him until 1814. They were entirely demolished in 1821. The marks were an S and a C in blue, and the word "Salopian". A crescent is also ascribed to Caughley which was afterwards developed into a C for "Caughley". Other marks distinctive of Caughley are the series of disguised numerals from 1 to 8. These are usually painted in blue but occasionally are found in red.

CAULDON LTD. (T. C. Brown-Westhead, Moore & Co.), Cauldon Place, Stoke-on-Trent. These works were founded by Job Ridgway at the end of the eighteenth century and continued by his two sons, John and William. Job Ridgway died in 1814, and about a year later John (the most enterprising of the sons) introduced a bone china of unsurpassed quality. He initiated many new shapes, and applied to them decorations

J. W. R.

of a rich and varied character. He found employment for many skilful decorators, and his gilt patterns have never been surpassed for elaboration, neatness and precision of execution. The blue-printed wares were also of a very elaborate character. In 1859 Mr. John Ridgway retired from the business, and the style of the firm was changed to that of Brown-Westhead.

Moore & Co. Mr. Brown-Westhead died in 1882 and the business passed into the hands of Messrs. W. B. and F. T. Moore, who later changed the firm into a limited liability company, under the style of Cauldon, Limited. The traditions of the firm are still upheld. Every conceivable class of pottery is, or has been, made at Cauldon Place, including sanitary ware. Many notable artists have found employment here, including Leonce, Mallet, Bernard, Gieffert, Birbeck, Stephen Pope,

Speight and others. The mark here illustrated was used before 1830 by the sons of Job Ridgway, John and William. The names of the different patterns were given in a shield with the initials J. W. R. The second mark appears on American blue-printed. The beehive mark is one of John Ridgway's

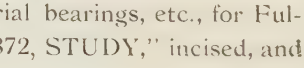
I. RIDGWAY

RIDGWAY & SONS.

early marks, after 1830. Royal patronage was extended to the firm in 1850, after which date the marks usually bear either the crown or the Royal arms.

CAZIN, C. Sometime Director of the School of Art at Tours, France, designed jugs, mugs, canettes, etc., with incised and impressed decorations of armorial bearings, etc., for Fulham. These are signed "CAZIN, 1872, STUDY," incised, and "C. CAZIN," with date, also incised.

CHAFFERS, RICHARD. A Liverpool potter who made both china and earthenware. In his advertisement (1756) he states that "All the ware is proved with boiling



water before it is exposed for sale". Wedgwood regarded Chaffers as no mean rival. He was potting from the middle to the latter end of the eighteenth century. A painted mark occurs on a pepper-box or pounce pot in the Liverpool Museum.

CHALLINOR, E. & C. Formerly E. Challinor & Co. of Sandyford and Tunstall. The Fenton Pottery, established in 1825 by Messrs. C. J. & G. M. Mason, passed into the hands of Mr. Samuel Boyle who was subsequently succeeded by Messrs. E. & C. Challinor. The productions are white granite and printed earthenware, principally for foreign and colonial markets.

E. & C. CHALLINOR
FENTON.

E. & C. CHALLINOR.

IRONSTONE
CHINA
E. & C. CHALLINOR.

CHALLINOR, EDWARD. Became proprietor of the Overhouse Works, Burslem, in 1819. He rebuilt the works in 1869. Upon his retirement he was succeeded by Messrs. Allman, Broughton & Co.

CHAMBERLAIN, ROBERT & HUMPHREY. Robert Chamberlain, who had been an apprentice at the Old Worcester Porcelain Works, decorated china in company with his brother at an establishment in High Street, Worcester, obtaining their ware from Turner of Caughley, who also supplied them with large orders for decorations. They built works at Diglis, their business increasing greatly. They executed commissions for very highly placed personages, the Prince Regent, Nelson and others. See Worcester.

CHAMPION, RICHARD. Opened the Castle Green Factory at Bristol in 1770, but appears to have been experimenting some years earlier. He probably worked under a licence from Cookworthy, the Plymouth apothecary, who had taken out a

patent for the manufacture of true porcelain, and who was working a factory at Coxside, Plymouth. In 1773 Champion bought Cookworthy's patent rights and remained at Castle Green until 1781. In 1775 he petitioned Parliament for a ten years' extension of Cookworthy's patent and was violently opposed by the Staffordshire potters, headed by Wedgwood and Turner, but although the powerful influence of Earl Gower was exercised in favour of the Staffordshire men the Royal assent was obtained. In 1777 or 1781 (the date is variously given) Champion sold his patent to a syndicate of Staffordshire potters, consisting of Samuel Hollins, Anthony Keeling, John Turner, Jacob Warburton, William Clowes and Charles Bagnall. This syndicate originated the hard porcelain works at the New Hall, Shelton. It is doubtful whether Champion really ever worked for this syndicate. Simeon Shaw says he did, but Champion's biographer supplies apparent proof that he took no part in the management. His stock was sold by auction at Bristol in 1782. He left England in 1784 and settled on a farm in South Carolina where he died in 1791. See New Hall.

CHAPPELL, STEPHEN & JAMES. Proprietors of the Leeds Pottery between 1840 and 1847, in which latter year the firm became bankrupt.

CHATTERLEY, SAMUEL. Also potted in Hanley about 1800.

CHATTERLY, WILLIAM, Hanley. Working at the latter end of the eighteenth century.

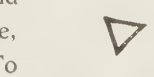
CHELSEA. Mr. J. E. Nightingale, F.S.A. (*Contributions Towards the History of Early English Porcelain from Contemporary Sources*), gives an advertisement from the "Chelsea China Warehouse, St. James's Street, January 17, 1750," referring to the productions of Mr. Charles Gouyn, late proprietor and chief manager of the Chelsea House. One Nicholas Sprimont, a silversmith, had succeeded Gouyn as manager a year previously, *i.e.*, in 1749.

From Faulkner's *History of Chelsea* we learn that the china manufactory was situated at the corner of Justice Walk and occupied houses in Lawrence Street. An advertisement in the London *Evening Post*, December 19, 1749, refers to property in "Great China Row, Chelsea," and upon digging the foundation for Cheyne Row West, extensive remains of the Chelsea Porcelain Works were discovered, including large quantities of broken vases, etc.

Sprimont certainly continued his connection with the Chelsea Works until 1769 when it ceased, and the following year the works passed into the hands of Duesbury & Heath of Derby. For the next fourteen years, *i.e.*, from 1770-1784, the concern was carried on by Duesbury in conjunction with Derby, and this is known as the Chelsea-Derby period. In 1784 the works were finally dismantled and the whole of the plant removed to Derby.

The productions of the Chelsea Works may therefore be divided into three distinct periods: (1) The Gouyn regime, which began a little before 1745 and lasted until 1749. (2) The period of Sprimont's proprietorship, 1749-1769, during which period the character of the productions changed materially. (3) The Chelsea-Derby period which lasted until the dismantling of the works in 1784, during which period the character of the wares again underwent a marked change consequent on the introduction of a different personality.

During the earliest period very little colouring was employed, the character of the work both as to form and decoration bearing a strong Chinese influence, the majority of the pieces being unmarked. To this period belongs the grotesque teapot of a seated Chinaman (British Museum, II. 12). The mark a triangle incised. The triangle mark was no doubt common to both Bow, Chelsea and Derby, appearing on the beautiful Derby biscuit figure attributed to Coffee in the South Kensington collection.



The earliest dated piece is the goat and bee milk jug, in

which the triangle appears together with the word Chelsea, and the date 1745.

The figure of a waterman with Doggett's coat and badge is excellently modelled and extremely spirited; it is unmarked. This figure is probably modelled by the same hand as the group of a shepherd and shepherdess embracing (British Museum, II. 6a), the mark on this piece being a trident and crown in blue under glaze. This mark is given in the British Museum catalogue as being uncertain, "the nearest analogue being that figured in Chaffers, p. 180, and said to accompany an incised triangle on a white porcelain cup". The embossed anchor appears early, on a plate in the British Museum (II. 10) with prunus sprigs in relief. A more severe and primitive style of figure was produced at Chelsea, of a much better character and better modelled than the production of the later period. An excellent example is the nurse with "bambino," after De Blémont of Avon, near Fontainebleau (British Museum, II. 34). Mark—a raised anchor edged with red.

The anchor mark varies considerably both in size, colour and neatness of execution. The most usual colour is red, but many pieces, and often the better pieces, are in gold. Blue is also used.

The double anchor appears only on the best pieces, in gold. Examples bearing this mark usually fetch high prices.

Upon the transference of the works to Duesbury in 1770 the florid rococo character of the productions gradually changes,

and its place is taken by decoration of a more restrained character. The mark is also changed to a combination of the Derby D with the Chelsea anchor.

The changed character of the productions is seen in a ewer of oviform body in the British Museum (II. 309), with the oval panels painted with a figure of Virtue, and a landscape. The mark, however, is still the anchor in gold.

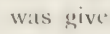
The Chelsea-Derby marks are given under Derby.

CHESTERFIELD. See Brampton.

CHETHAM & WOOLEY, Lane End, about 1795. Made what is described by Simeon Shaw as a new kind of pottery, a dry body without glaze or smear. It was given the name of Pearl ware.

CHEW, JOHN. See Stubbs Bros.

CHILD, SMITH. A pottery was built at New Field, Tunstall, about 1763 by Smith Child, Esq., an ancestor of the present Sir Smith Child. The pottery was afterwards carried on, first by J. H. Clive, who produced "blue printed," and afterwards by Joseph Heath & Co. and William Adams respectively. A sauce-boat appears in the Hanley Museum with painted border similar to the delicately pencilled dinner ware of Wedgwood & Mayer. Marked as given, impressed.



CHRISTIAN, PHILIP. The leading potter in Liverpool after the death of Chaffers, from whom he purchased the lease of the vein of Soap Rock in Cornwall, and sold it in 1775 to the Worcester Co. Christian produced large vases of good quality and decoration. He also manufactured tortoise shell wares. The impressed mark "CHRISTIAN" occurs.

CHURCH GRESLEY, near Burton-on-Trent. A china factory was established here in 1795 by Sir Nigel Gresley. A skilled modeller named Coffee, from Derby, was engaged, and workmen secured from the Staffordshire Potteries. In 1800 the works (having sustained heavy losses) passed into the hands of William Nadin, who worked them at a loss until 1804 when

they were taken over by a company. This failed in 1808 and the "China House" was demolished. Failure was attributed to loss in firing. The highest quality was sought after, and Queen Caroline gave an order without limiting the price, but this order was never completed. Church Gresley is on the extreme borders of Leicestershire, but is really a part of the Burton-on-Trent group of potteries. Specimens of Church Gresley china are extremely rare. A tankard of artificial porcelain in the British Museum (XIII. 1), painted with landscape in blue, is assigned to Church Gresley. It bears no mark.

CLARK, ELIZABETH. The name is found on a tobacco jar in form of a bear, with the date "Dec. ye 25th, 1769," given by Jewitt.

CLARK, HENRY. An extremely able painter of flowers and landscapes, at the Water Lane Pottery, Bristol, where he worked for nearly fifty years. He died about 1862.

CLARK, HENRY. Established a pottery at Cheam in 1869, made ornamental red ware, occasionally marked "Henry Clark, Cheam Pottery".

CLARKE. Partner in the Don Pottery in 1807. Greens, Clark, & Co.

CLARKE, Newcastle-under-Lyme. Migrated to France in 1775.

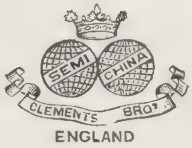
CLARKE. A Broseley pipe-maker, 1647.

CLARKE, EDWARD. Occupied the "Churchyard" Works, Burslem, about 1860, in partnership with Mr. Bridgwood, and also the Phœnix Works at Tunstall; afterwards took the New Bridge Works, Longport, in 1877; entered into partnership with Mr. J. F. Emery, and produced "white granite," etc., for the American market. The marks were "EDWARD CLARKE," "EDWARD CLARKE & CO.," for printed, together with the royal arms with supporters, etc., and "EDWARD CLARKE, PORCELAIN OPAQUE" on a ribbon, with "TUNSTALL".

CLARKE, THOMAS. Proprietor of the Derby Works, 1846. See Derby.

CLEMENTS. Partner in MacIntosh & Clements. Proprietors of the Fulham Pottery for two years previous to their being taken over by Mr. C. J. C. Bailey in 1864.

CLEMENTSON BROS., Phœnix Works, Broad Street, Hanley, Staffs.



CLEMENTSON, JOSEPH. Commenced business in partnership with a Mr. Reed or Rhead in 1832 as a manufacturer of earthenware. Shortly afterwards Clementson assumed sole control, and in 1856 he purchased the Bell Works formerly occupied by William Ridgway. He died in 1871, and the business was continued by his four sons under the style of Clementson Brothers.

CLEWS, JAMES. Succeeded A. Stevenson at the Cobridge Works in 1818, and made a number of historical patterns in a fine rich blue which were very popular, especially in America, as his subjects generally were chosen from American history. He failed in 1829, sailed to America in 1836, and with the assistance of some capitalists built a pottery at Troy, Indiana. He failed here, partly through an epidemic disease which decimated his workpeople, and returned to England, after which nothing more is known of him. In a Directory dated 1818, R. & S. Clews are described as potting at Cobridge.

CLIFF, W. D. A Yorkshire potter who purchased the earthenware works of the extinct firm of Dimmock & Wood at Hanley. He carried them on with varying success for about twenty years and withdrew about 1890. The works were demolished for town improvements. See Dimmock.

CLIFTON, Pontefract.

CLIVE, J. H. See Child, Smith.

CLOSE & CO. Successors of W. Adams & Sons, Stoke. A mark occurs, as given, on a fish plate at South Kensington and on other pieces.

CLOSE & CO.
LATE
W. Adams & Sons
Stoke-upon-Trent

CLOUGH & LESTER, Longton. Modern makers and factors of earthenware and china.

CLOWES, WILLIAM. One of the syndicate of Staffordshire potters who worked Champion's patent.

CLOWES, WILLIAM, of Port Hill. One of the partners in the New Hall Syndicate.

CLULOW, ROBERT, & CO., Etruria, 1802.

COADE, Lambeth. Established about 1760 at "Narrow Wall". On a trade card on which allegorical figures are engraved appear the words, "Coade's Lithodipyra or Artificial Stone Manufactory". The material was intended primarily to answer every purpose of carved stone. John Bacon, R.A., the sculptor, designed models, including statuary, for Coade as early as 1762.

COADE & SEALEY. Succeeded James Coade in 1811.

COALBROOKDALE, Salop. Sometimes confused with Coalport, as these works were known at one time as Coalbrookdale. There are terra-cotta works here, and Messrs. Maw's Tile Works are in close vicinity.

COALPORT. John Rose, an apprentice of Turner of Caughley, opened small works at Jackfield some time anterior to 1790. He removed to Coalport, and in 1799 Mr. Turner retired and sold the Caughley Works to Rose, who

JOHN ROSE & Cº
COLEBROOK DALE
1850

worked both potteries until 1814, when he gave up Caughley. In 1820 Mr. Rose also purchased the Swansea Works, and shortly afterwards those of Nantgarw, removing all the patterns and moulds to Coalport. John Rose died in 1841. He was succeeded by his nephew W. F. Rose, and Mr. William Pugh. W. F. Rose retired from the firm in 1862 and died in 1864. He was succeeded by Mr. Pugh, who died in 1875. On Mr. Pugh's death litigation ensued, and the estate was thrown in Chancery. The works were purchased by Mr. Bruff, a London barrister, who is still conducting them. The successive partnerships are: John Rose & Co.; Rose & Blakeway; Rose, Blakeway & Rose; Rose, Johnson & Winter; Rose, Johnson, Clarke & Winter; Rose, Winter & Clarke; Rose, Clarke & Madison; Pugh, Rose & Rose; W. Pugh & W. F. Rose; W. Pugh, and the present proprietor, Mr. Bruff. The founder of the firm, Mr. John Rose, was in 1820 awarded the Society of Arts Gold Medal for his china glaze, which was made without lead. This glaze is said to be used with slight modifications to-day. The Coalport china has always attracted admiration, and high honours have been awarded the firm at the various international exhibitions. They have been noted for their royal blue, Rose du Barry, and other colours, and many richly painted and gilt services and vases have been produced. Billingsley, R. F. Abraham, Birbeck, John Randall, and J. Hartshorn are among the many well-known ceramic artists employed at Coalport.

The earliest marks after 1799, the year of Rose's acquisition of the works, were the initials C. & S. (for Caughley & Salopian) with occasionally the word "Salopian" impressed.

The S occurs in various forms, occasionally with a cross. A milk jug painted in colours, and a mustard pot painted in blue in the British Museum (VI. 1 & 2) are marked with the letter C in blue.

An oblong tray with the willow pattern (B.M. VI. 5) has the Roman capital S in blue.

The capital S with crossed swords occurs on several pieces.

An imitation Sèvres mark also occurs as well as the two anchor marks given.

The word "Salopian" is impressed in capitals and lower-case letters. For the above mentioned, see Caughley.

The word "Coalport" is occasionally written, in red, blue or gold.

During the period the works were known as "Coalbrookdale" the mark is C. D. in a monogram, C. D. in cursive letters, C. Dale, and C. B. D. arranged as a monogram, the latter varying on different pieces. This latter monogram has been used on later pieces. A chocolate cup and saucer in the British Museum (VI. 10), painted in colours with gilding, has the monogram C. B. D. painted, together with the letters V. R. impressed, about 1850. About 1820 a mark was used with "Coalport Improved Felspar Porcelain," surrounded by a wreath of laurel, with the words added—"Patronised by the Society of Arts". This refers to the Society of Arts gold medal awarded to Mr. Rose in that year. The "Rose" mark occurs on a number of pieces.

The curious cypher, formed of the letters C. and S., which represent "Coalport" and "Salopian" associated with the letters C. S. N. for Caughley, Swansea and Nantgarw, represents the development of the manufactory and its absorption of the smaller factories. This was not used prior to 1860.

The garter or ribbon, with the words "Daniell London," enclosing the monogram C. B. D. is the mark of the London agents Daniell, of Bond Street and Wigmore Street, and appears on wares commissioned by them.

A royal crown was used, with "Coalport A.D. 1750," and the same with the word "England" added above the crown, to meet the requirements of the American Tariff Act.

COATES, VICTOR, Laganville, near Belfast. Made a coarse kind of Delft towards the close of the eighteenth century.

COCHRAN & FLEMING, Britannia Pottery, St. Rollox, Glasgow.

Makers of earthenware. It is one of the oldest potteries in Glasgow, dating from the beginning of the eighteenth century.

COCK PIT HILL POTTERY, near Derby. Slip ware was made here in the earlier part of the eighteenth century. See Slip Wares.

COCKSON & HARDING. Proprietors of the New Hall Works, Shelton, from 1856-1862, when Mr. Cockson retired and the works were carried on by Messrs. W. & J. Harding. The mark is C. & H. late Hackwood, and afterwards Harding in caps. See New Hall.

COFFEE, W. T. An extremely skilful modeller who worked for Derby and other factories. Coffee was originally a painter in oils. There is a very fine Derby biscuit figure attributed to Coffee at South Kensington (V. and A. Museum) of a young man leaning against the stump of a tree with a dog and sheep. It bears the mark of an incised triangle together with the Derby mark of the jewelled crown, crossed staves and D. He usually signed his works W. T. Coffee, and it is a little singular that so skilful a figure as the one referred to should not be signed, if indeed it be by Coffee.

COKE, JOHN. The founder of the China Works at Pinxton, in 1795. See Pinxton.

COLCLOUGH, H. J. A modern manufacturer of china and majolica at Longton.

COLCLOUGH, MARY, Pittshill. Earthenware, 1795.

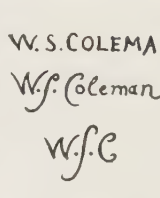
COLE, JOHN & CALEB. Earthenware manufacturers at Newfield, near Tunstall, about 1800.

COLEMAN-ANGELL, HELEN CORDELIA. An extremely brilliant and original painter of flowers in water colours; member of the Royal Water Colour Society; the elder of the two sisters of W. S. Coleman. Executed a few dishes, plaques, etc., of flowers, exhibiting similar colour quality to that of her water-colour painting. Born in 1847, died in 1884.

COLEMAN, REBECCA. The younger sister of W. S. Coleman. Executed a considerable number of dishes, plaques, etc., of heads of children and young girls, of a type which was pretty, though not very elevated—large eyes, short nose and protruding upper lip. The decorative method employed was

similar to that of W. S. Coleman, *i.e.*, a strong brown outline, usually under glaze, the greater part of the colouring in enamel, the general colour scheme being also similar to that of her brother, *viz.*, dark blue, turquoise and olive green. Signed her works usually "R. Coleman," occasionally "Rebecca Coleman".

COLEMAN, WILLIAM STEPHEN. A well-known illustrator and painter in water colours, who took up pottery decoration in the latter years of the sixties. He associated himself first with Messrs. Copeland, for a short period, and afterwards with Messrs. Minton, and produced a number of plaques, bowls, fire-place slabs. etc., of nude and semi-nude figures, executed in a freer and more artistic style than had been done previously. His earliest works were done in under-glaze colours entirely, but this method was gradually abandoned for the more showy enamels. He also produced a number of interesting subjects of landscapes with rustic figures (mostly tile slabs for framing) painted in enamel monotone of purple brown with pale washes of black. For Messrs. Minton he designed a remarkably fine dinner service decorated with plants and natural objects, the outlines reproduced by means of a process known as Graphotype, a system of drawing with a prepared ink upon a compressed bed of chalk, the uncovered chalk being brushed away, leaving the drawn portions intact. A metal cast or electro was made from which the transfer prints were taken. The outlines, printed under glaze in brown, were afterwards coloured in enamel by hand. Coleman was mainly instrumental in the establishment of Minton's Art Pottery Studio at Kensington Gore in 1871, started with the twofold purpose of raising the standard of pottery decoration, and of providing employment for the lady students of the National Art Training School at South Kensington. He abandoned pottery decoration in the early eighties and died in 1904. He signed his works either "W. S. Cole-



man," or in the earlier and a few unimportant pieces merely with the initials "W. S. C.".

C. & H. See Hill & Co.

COLLIER, S. & E., LTD., Grovelands Potteries, Reading. Terra-cotta.

COLLINGWOOD BROS., LTD., Stafford Street, Longton, Staffs. China.

COLLINSON, JAMES, Goldenhill, 1820.

COLLISON, JOHN, Tunstall, 1798.

COMBED WARE. Made at Burslem and Hanley in the latter half of the seventeenth century. Alternate layers of red and white slip were applied to the ware which was then "combed" with a wire brush or comb and afterwards glazed with powdered lead.

COMPLIN. Figure modeller of the Chelsea-Derby Works.

COMPTON. Mrs. G. F. Watts, the wife of the distinguished R.A., has established a pottery here in connection with the Home Arts and Industries Association. Some good work has been done, chiefly church work, memorial pottery, cinerary caskets, fonts, etc.

CONE, THOMAS, Alma Works, High Street, Longton, Staffs. Earthenware. T. C.

COOKWORTHY. See Plymouth and Bristol.

COOPER, MRS. "Blue" painter of Lowestoft.

COOPER, THOMAS, Shelton. Occupied the Victoria Works, afterwards taken over by T. C. Brown Westhead, Moore & Co.

COPE, J. H., & CO., Wellington Works, Stafford Street, Longton, Staffs. China.

C. & CO.

COPELAND. The present firm of W. T. Copeland & Sons of Stoke are successors to the business of Josiah Spode who took into partnership a traveller named William Copeland. The first Spode died in 1797 and the second (also named Josiah) in 1827. Copeland died a year earlier. The business was carried on by their two sons, W. T. Copeland and Josiah Spode the third, the latter of whom died in 1829. Mr. W. T. Copeland was an Alderman of the City of London, and Lord Mayor in 1835-36. In 1833 Thomas Garrett was taken into partnership and the firm was known as Copeland & Garrett until 1847, when Mr. Garrett retired. Mr. Copeland carried on the business alone until 1867 when he admitted his four sons as partners. Three of the sons are retired or deceased, and the business is now carried on by Mr. Richard Copeland and his sons. It was in 1797, the year of the death of the first Josiah Spode, that his son Josiah (Spode the second) returned to Stoke after making William Copeland a partner and entrusting the London warehouse in Portugal Street, Lincoln's Inn, to his care. The earliest marks in which the name of Copeland appears are: "Spode, Son & Copeland," or "Spode & Copeland" in caps, both impressed and printed. These marks were used as also the different Spode marks already in use. See Spode.

The marks used during the Copeland & Garrett partnership from 1833-1847 are as follows:—

The words "Copeland and Garrett" in a circle enclosing the royal crown.

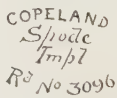
Copeland & Garrett in caps. COPELAND & GARRETT.

C. & G. with the name of the pattern.

Copeland & Garrett in a circle enclosing "Late Spode".

This mark was used for the pattern known as "The Tiber".

The following five marks were used upon the various wares indicated by the name. The third, Copeland & Garrett, in a



circle enclosing the words "New Fayence" and surmounted by a royal crown, appears on various patterns, among others a dessert service in grey earthenware with birds and flowers printed in brown and coloured in under glaze. The birds were engraved from the "Naturalist's Library" (Jardine) which was published in 1833, the first year of Copeland & Garrett's partnership.

These two marks appear on porcelain of various patterns.

The marks used by the firm subsequent to 1847, the year in which Mr. Garrett retired, are as follows :—

Copeland late Spode

Copeland
Late Spode.

Copeland

A wreath enclosing the word "Copeland" surmounted by a royal crown.

Copeland
Stone China in two lines, lower-case letters with caps.

Two C's reversed, with the word "Copeland" in block letters. This mark was used between 1847 and 1856.

Mark used 1847-56.

Two ornamental C's reversed with the word "Copeland" in block letters.

The word "Copeland" in a semi-circle with the letter B. The "Bee" mark.

COPELAND
B

A seal mark, Chinese key pattern, with the words "Spode & Copeland" above and below.

The same with a large block letter C superimposed on the seal.

Copeland's China
England in two lines, block letters.

A ship, with ornamental sail, the reversed C's in the centre, the words "Copeland late Spode" round the sail. This is the present trade-mark.

CORDON, RALPH. Manager of the Herculaneum Pottery, Liverpool, about 1800.

CORK & EDGE, Newport, Burslem. Commenced business in the early part of the nineteenth century, and made figures and chimney ornaments, general earthenware, and subsequently lustred ware. They introduced a process of inlaying coloured clays in the ground body. Succeeded by Edge, Malkin & Co., and by Mr. Webster Dean, who now carries on the works.

CORMINE, JAMES. Succeeded J. & R. Riley at the Nile Street Works, Burslem (now occupied by Doultons) about 1820. The name is spelt Cormie by Chaffers, but appears in a Directory of the period as Cormine.

CORN BROS., Tunstall. Tiles.

CORN, W. & E., Burslem. Earthenware. Now the Henry Richards Tile Co. (which see).

COSTRELS. Flattened, oval or round bottles with a small neck and foot (sometimes no foot) with loops for a strap or leather thong. They were also called Pilgrim bottles, and were made by the monks from the thirteenth to the sixteenth century.

COTTON. A figure painter at the Chelsea-Derby Works.

COTTON, ELIJAH, Hanley. A manufacturer of earthenware, principally jugs.

COTTON & BARKER, Burslem. Makers of printed earthenware, 1841-1852.

COTTRELL, JOSEPH. Painter of Worcester (Flight, Barr & Barr).

COUPER, JAMES, & SONS, City Glass Works, Glasgow.

COXON & CHETWYND, Globe Works, Cobridge. Lilac-sprigged china, small china figures and ornaments, between 1830 and 1850.

CRAFT, W. H. An enameller at Battersea in 1787.

CRAVEN, DUNNIL & CO. See Jackfield.

CREAM COLOUR. First so called by Thomas Astbury, 1725. Wedgwood's "Queen's ware" was an improved form of Astbury's body.

CRESCENT. The crescent mark has been used by many potters. It is the true Worcester mark, and has been used on pieces from 1751 to 1840. It is sometimes used with the addition of the letter E. The open (as opposed to the solid crescent) is usually in blue under the glaze, but sometimes in red or gold. Others (with the E added) and a crescent with a profile face are generally found on pieces printed under-glaze. Caughley occasionally used the crescent (1772-1799), and its use was continued at Coalport, but it was eventually changed into the letter C.

CRISPE. A china manufacturer of Lambeth to whom John Bacon the sculptor was apprenticed in 1755. After Bacon had served two years, he made all the models for Crispe's factory.

CROUCH WARE. Thin white stoneware glazed with salt. Mr. Solon thinks the name is derived from the white Derbyshire clay used for crucibles at Nottingham, but Mr. W. Turner, in a very exhaustive article in the *Connoisseur*, supplies better reasons for supposing that the name is taken from Crich in Derbyshire, which name has undergone many mutations.

CROWN DERBY. See Derby.

CROWN MARKS. The crown was originally used to signify

royal patronage, but it has been so indiscriminately employed as a mark that it has now no real significance or value as indicating any connection with royalty. It is now perhaps the commonest symbol employed as a pottery mark, and hundreds of "crown" marks exist.

CROWN STAFFORDSHIRE PORCELAIN CO., LTD. The old-established works of Messrs. T. A. & S. Green, Fenton. See Green.

CROWTHER, JOHN. Partner of Weatherby, the first known proprietor of the Bow Factory. See Bow.

CRYSTAL PORCELAIN CO., Longton. China.

CURTIS, THOMAS. A painter of Lowestoft. Several dated specimens of Thomas Curtis exist. Mr. Chaffers mentions a mug, dated 1771, and part of a tea service, 1775, in possession of the family.

CUTTS. The last owner of the Pinxton Works, which were closed in 1812.

CYPLES, LYDIA. Potting in Longton in 1818.

CYPLES, MARY, Longton, prior to 1800. Probably successor to Cyples & Barker.

CYPLES & BARKER, Longton. Egyptian black and other coloured bodies of fine quality, about 1770.

DALE, J. Appears as a figure maker. In the Victoria and Albert Museum is a set of figures representing the elements. "Fire" and "water" are marked as given, impressed. "Earth" and "air" unmarked.

J DALE
BURSLEM

DALE & CO., Cobridge. End of the eighteenth and the beginning of the nineteenth centuries.

DALE, PAGE & GOODWIN. Were making lilac-figured china, and elaborately grounded and gilt tea ware at Longton, the first half of the nineteenth century. They were working until 1868.

DALMAZZONI, ANGELO. An Italian modeller engaged by Wedgwood in 1787 to copy works of art in Italy.

DANIEL FAMILY. Many members of this family are intimately associated with the improvement of the Potter's Art in Staffordshire. A Daniel—Christian name doubtful—of Cobridge, was the first local potter who practised enamelling in his factory, his example being soon followed by others. There is no reliable record of the date, but it is probable that he produced enamelled wares about 1760. There were two Dutchmen practising enamelling at Hot Lane, Burslem, in 1750, and they are credited with being the first. A Richard Daniel was making mottled wares at Hot Lane in 1710, and a Robert Daniel was working at the same date at the Hole House, making "black," "mottled" and small wares. Hot Lane is between Cobridge and Burslem, and it is very probable that the Daniel who first tried enamelling was the successor of the Richard Daniel above mentioned. Shaw credits Ralph Daniel with the introduction of plaster moulds in 1743, and Henry Daniel, Spode's enameller, is credited with the inception of the process of raising gold by the application of a certain paste in relief, fired and afterwards gilded. Shaw also tells us that the discovery of "preparing a gold lustre which could be applied by the pencil . . . was discovered by Mr. James Daniel, of Pleasant Row, Stoke". And John Daniel of New Hall, if not the actual inventor, was the first local potter who supervised the manufacture of hard porcelain in Staffordshire. Nearly all the Daniels were creditable ceramists, and one branch of the family held for many years a practical monopoly of the manufacture of hard kiln ruby,

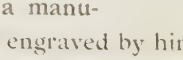
crimson, Rose-du-Barry, and other gold colours. No other family can show such a record of ingenuity and initiative in the potting industry.

DANIEL, RALPH. Made stoneware in Cobridge in 1743. Probably the Daniel who introduced enamelling on his works.

DANIEL, RICHARD. Widely and familiarly known as "Dicky" Dennel (as the name was locally pronounced), was chemist and enamel colour maker to the second Spode. In 1826, a year before Spode's death, we find him in partnership with his brother Henry, manufacturing china in Stoke, at the works now known as Minton's Stone Works. How long previously to 1826, or how long after that date they remained in business, is not positively known, but they were only potting a few years altogether. It is probable that they were short of capital, for the wares were of the highest class, both in quality and decoration. After the failure of this venture, one or both of the brothers commenced to manufacture enamel colours for "the trade," and this business was successfully carried on by the family until the death of Richard's son's widow between 1875 and 1880.

DANIEL, RICHARD, the younger. Was manager for the Hill Pottery Co., Limited, which took over the business of Sir James Duke & Nephews, in 1866. The enterprise was unfortunate, and only lasted a little over a year.

The mark, "S Daniel Stoke" occurs on a mug in the South Kensington collection, transfer printed in black with the Baker's arms. It is the mark of Sampson Daniel, who was not a manufacturer, but the piece was probably engraved by him.



DANIEL, WALTER. Was making earthenware, cream colour, printed and small wares at Newport, Burslem, between 1796 and 1805.

DANIEL & BROWN. Were enamellers in Hanley contemporaneously with Wedgwood & Byerley (1790-1803). They

enamelled "for the trade," executing orders for manufacturers generally.

DAVENPORT, JOHN. Commenced business about 1788 in partnership with Mr. Wolfe at Stoke, where they occupied a factory adjoining that of Mintons. This partnership was dissolved in 1794, and John Davenport took the works formerly occupied by John Brindley, brother of James Brindley, the famous engineer. Davenport had in 1789 made a prolonged visit to France with the object of studying French methods of manufacture. On his return he applied himself to the improvement of the body and glaze of English china, with the result that he produced a body and glaze which some amateurs declare has never been surpassed. We know to-day of Davenport slabs in white china, between thirty and forty years old, which are being painted and fired without the least risk of "spitting" in the glaze: a test which we believe no other china glaze could sustain. John Davenport appears to have been a "practical" potter in the truest sense of the word. He made no less than four china bodies, all of the first quality: one for casting, one for dessert and similar wares, one for tea wares, and one for large wares and slabs. He had a special glaze for each. Potters will appreciate the complexity of this method and the enormous amount of additional care and trouble required, but in Davenport's case, it appears to have been justified by results. His dark, royal or mazarine blues were unsurpassed, and the same scrupulous care was applied to the manufacture and application of these colours. Of printing blues alone he had at least a score, carefully prepared to suit varying conditions, such as the different glazes, and the depth and volume of his engravings. The formula was again varied for grounds, bands and panels, and this colour was a feature in the long series of patterns in blue, red and gold, based on Oriental models produced at the Davenport Works during the greater part of a century. George IV. was greatly interested in these works, giving the firm several important

commissions, and the royal crown was added to the trade-mark in 1806. A great variety of wares were produced, including general earthenware, statuary, stoneware, vases, toby jugs, and ornamental articles of every kind. In 1801 or 1802 Davenport added glass-making to his business, and for many years produced cut and other kinds of glass of the finest quality. He had several partners at various periods, Messrs. Sneyd, Kinnersley, James Davenport—a distant cousin, who died in 1822—and a Frenchman of old family, Victor de Pontigny. He was member of Parliament for the borough of Stoke-on-Trent for many years, and after having amassed a very considerable fortune, left on his death, in 1848, a prosperous business to his two sons, Henry and William. The mark given is from a plate transfer printed in purple with a classical subject after Flaxman.

DAVENPORT, HENRY & WILLIAM. Succeeded to their father's business in 1848. The direction of the concern was delegated to different managers with varying success, and the firm enjoyed a moderate degree of prosperity until the death of William Davenport in 1869. His brother Henry had been killed in the hunting field some years previously.

DAVENPORT, HENRY, son of William. Took as little part in the supervision of the business as did his father and uncle, and he was less fortunate in his managers. The works gradually declined, and were ultimately disposed of by auction in 1882. Davenport wares are gaining in the esteem of collectors, and, consequently, increasing in value. The marks are an anchor, with the word "Davenport" or "Longport" above, and (after 1805) the royal crown was used above "Davenport, Longport". A small rosette appears on some pieces. In the British Museum is a white earthenware plate with wavy edges, printed in black, with a shield of arms, yellow border with sprays of

flowers in white relief, bearing the accompanying circular ribbon mark printed in brown.

In the same collection is a stand for a beehive, drab earthenware unglazed, mark stamped "Davenport" with an anchor.

The word "Davenport" in lower-case letters with capital D, and "Longport" in caps has been used continuously.

The anchor marks vary. There is a large anchor with "Davenport" in block letters and a small anchor with "Davenport" in italics as well as one with capitals. There is also the word "LONGPORT" with an anchor. See Anchor Marks. The mark here given, with the anchor set at an angle, was used for ironstone china subsequent to 1805.

DAVENPORT, CHARLES. In the British Museum is a jug painted in colours with a sprig on one side and on the other a panel inscribed: "This is the first article manufactured by Charles Davenport, November 16th, 1798". Egg and dart pattern on neck, and spout coloured red with white annulets (British Museum Catalogue, H. 64).

DAVENPORT, J. & J. Had a pottery in Newport, near Burslem, in 1818. This was a branch of the Longport Works, the partners being John Davenport and his distant cousin James, previously referred to.

DAVENPORT, BECK & CO., Castlefield Works, Etruria. Earthenware, majolica, terra-cotta, etc. Mark, a castle, with "D. B. & Co., Etruria," within an oval garter. Now out of business.

DAVES, JAMES. In the British Museum (D. 122) is a globular-shaped jug with floral designs, etc., and panel inscribed:—

> Come fill me full with Liquor Sweet
> For that is good when Friends do meet;
> But pray take care dont let me fall,
> Lest you Lost your Liquor Jugg and all.
>
> —James Daves.

DAVIS. A painter of exotic birds at Worcester about 1784.

DAVIS, WILLIAM, an apothecary. One of the original shareholders in the Worcester Works. Simeon Shaw, referring to the Worcester Works, says: "This establishment was formed by the enterprise of some of the clergy of the cathedral, and for many years the principal director *sub rosa* was Dr. Davies".

DAWSON, Sunderland. About the beginning of the nineteenth century, Dr. Diamond had a cup and saucer with printed and enamelled figures bordered with pink lustre, and the name "DAWSON" stamped on the clay. The style of the firm in 1857 was Thomas Dawson & Co.

DAWSON, JAMES, Lane Delph, about 1800. Cream-coloured wares.

DAWSON, SAMUEL, Lane Delph, about 1820. Earthenware.

DAWSON, WILLIAM, Burslem, between 1795 and 1805.

DEAN, S. W., LTD., Newport Pottery, Burslem, Staffs. Successors to Edge, Malkin & Co., who succeeded Cork

& Edge. Messrs. Dean make wares of a commercial character, but with some artistic qualities. These are designed by Spencer Edge and others.

DEAR. A modeller of figures at the Chelsea-Derby Works.

DECARLE, R. B., Staffordshire. In the Willett collection is a brown stoneware jug, with well-modelled ornaments, vine leaves, etc., and on the front an escutcheon upon which is inscribed, "John Samuel Clack, January 16th, 1781," the name R. B. Decarle on the handle. It is also found on other examples, notably one mentioned by Chaffers in the Owles collection with the inscription in front "R. A. D. 1781," together with the artist's name.

DELFT. The difficulty of producing a body sufficiently white to enable the applied decoration to have its due effect, led the early potters to adopt the device of coating the ware with an opaque or semi-opaque substance. The potters found that the fusion of oxide of tin with the composition of glass and oxide of lead, entirely altered its translucent character and produced a fine opaque enamel. This combination of oxide of tin with that of lead had doubtless been known from a very early period, but its previous application was as a pigment rather than as a glaze or preparation for subsequent colour enrichment. The Delft potters then, of the seventeenth century, were the direct successors of the Italian majolicists of an earlier time, the Delft body or paste being almost identical with that of Luca Della Robbia and majolica. Its salient

character, like that of its earlier prototype, consisted of a hard buff body covered with a white stanniferous tin enamel, upon which was painted designs either in cobalt blue alone, or with blue as a colour foundation or outline, and the addition of manganese, orange, yellow and green.

It began to be made in Holland about the beginning of the seventeenth century, and about thirty years later was introduced into this country, doubtless in the first instance by Dutch settlers, who probably imported the materials from their native country. A clay was, however, soon discovered in this country, as we read of it being exported to Holland in 1693 by one Warner, who also supplied the different London potters with the same material. English Delft ware enjoyed great popularity, forming a dangerous rival to the purely English and characteristic slip wares and salt glaze, when it was ultimately superseded by the more utilitarian cream wares introduced by Wedgwood.

DELFT, Bristol. Delft ware was made at Bristol at the close of the seventeenth century. The Delft ware potters of Bristol were said to have been preceded by a maker of salt glazed pottery named Wrede or Read. The two makers of Bristol Delft were Richard Frank and Joseph Flower. The works were carried on at Redcliffe Backs. Of Flower little is known. Frank produced various kinds of pottery as well as tiles. There was in the Museum of Practical Geology a panel composed of twenty-four tiles, with a view of Redcliffe Church, and on one of the tiles the arms of Bishop Butler (1738-1750); these being made by Frank. Jewitt says that the earliest dated example of Bristol Delft is a plate marked on the rim "S.M.B., 1703". The next dated specimen is a high-heeled shoe, dated on the sole 1722 with the initials M.S. When excavations were made in 1869 on the site of Frank's pottery, abundant remains were unearthed. The decorations of Richard Frank were sometimes based on Dutch models, but were more usually imitated from Chinese examples.

In the British Museum is a plate painted by Michael Edkins at Frank's pottery. It is inscribed on the back as shown, the initials being those of the painter and his wife. This plate was presented to the Museum by Mr. W. Edkins, grandson of the painter.

Flower's name occurs in Sketchley's *Bristol Directory* for 1775 as potting at No. 2 Quay, but two years later he moved to No. 5 Corn Street. Authenticated pieces of his make are dated 1741-1750.

The well-known bowl from the Museum of Practical Geology having the oft-quoted inscription :—

John Udy of Luxillion, his tin was so fine
It glidered this punch bowl, and made it to shine,

is attributed to Bristol. It is unusually good in the character of its design.

Frank was succeeded by Joseph Ring in 1786, but the business seems to have been purchased two years before, as an inventory of stock, including an item of £7 5s. for "delph ware," is dated 1784. Ring engaged as manager Anthony Hassel of Shelton, who introduced cream coloured and other Staffordshire earthenwares. Doubtless the superior potting and finish of the new kinds of ware were contributory to the decline of the Bristol Delft. Ring was a son-in-law of Cookworthy. His mark, found chiefly on his cream ware, was a cross + in blue.

The most complete collection of Bristol Delft ever made was destroyed in the disastrous fire at Muswell Hill in 1873. There are good specimens in the Willett and Franks collections. Among Mr. Franks' dated plates are the following:—

P.		R. S.	I.
W. M.	F. E.	October 27	T. + M.
1711	1721	1735	1753

and a fine bowl marked on foot W .:. C / 1755

But the dated pieces do not absolutely determine the period of Bristol Delft. The marriage of "Thomas Frank, gallipot

maker," is recorded in 1697, and excavations on the site of his potworks have shown that he made Delft ware, so that this branch of potting may be traced back to the closing decade of the seventeenth century. Professor Church thinks that all dated pieces anterior to 1706 must be assigned to Lambeth. We do not know whether he includes the plate mentioned by Jewitt as being dated 1703.

Inscriptions on Bristol Delft, indeed on all English Delft, are much in evidence. "Success to the British Arms," "Success to Trade" occur on two punch bowls in the British Museum, the former dated 1755 with initials W. C. On two election plates: "SIR IN° POLE FOR EVER 1754," and "Calvert and Martin for Tukesbury, sold by Webb". On the rim of a plate painted in blue with an equestrian figure of the Duke of Cumberland: "God Save ye Duke of Comberland Remember ye fight of Culloden" (British Museum, E. 134). On a puzzle jug, painted in blue, a panel with the following:—

> Here Gentlemen Come try your skill,
> I'll hold a wager if you will,
> That you don't drink this Liquor all
> Without you spill or let some fall:

a variation of a similar rhyme appearing on slip wares.

In the British Museum is a plate given by William Edkins in 1887 with a transfer-printed subject in black of the "Sailor's Farewell". A note from Mr. Edkins states: "It is the only specimen I have ever seen of transfer printing on the old Bristol Delft ware. A very rare and interesting piece." The plate was probably printed at Liverpool, as Owen states that transfer printing was practised for the first time on Bristol pottery at Water Lane about 1797. Transfer printing was first practised at Liverpool by John Sadler about 1750.

DELFT, Lambeth. Little is known of the early potteries of Lambeth. Dutch workmen from Delft established several potteries there in the early part of the seventeenth century.

In 1676 a patent was taken out by A. von Hamme for the manufacture of pottery "after the way practised in Holland, which has not been practised in this our Kingdom". This claim, however, can hardly be maintained, as many pieces are in existence which tend to show that Delft was manufactured in England as early as 1631. English Delft wares have several peculiarities which alone should prevent them being confused with the Delft wares imported in such quantities from Holland.

The English body was redder than the Dutch, and being considerably harder it absorbed less glaze, so that the reddish tone frequently shows through.

The glaze, too, has a habit of crazing badly, a fault rarely seen in the Dutch wares. The glaze itself is really whiter than the corresponding Dutch specimens, and also more opaque, but this whiteness and opacity is neutralised by the comparatively small amount of glaze taken up by the harder body.

The candlestick in the Victoria and Albert Museum bears the Fishmongers' Arms, with the date 1648, twenty-eight years before the date of Von Hamme's patent, and the mug inscribed William and Elizabeth Burges is dated 24th August, 1631.

There are numbers of wine pots and bottles in existence, lettered in blue to show the date of bottling, as Sack 1646, Claret 1662, Whit (or white) Wine 1641. The dates on "Whit Wine" bottles vary from 1641-1656; Sack, 1644-1657, and Claret, 1647-1663. All these dates are anterior to the date of Van Hamme's patent.

Another distinguishing feature of the English Delft wares is the treatment of the backs of the pieces. The Holland Delft is always enamelled at the back with the stanniferous

enamel, while the English specimens are, with very few exceptions, covered with the usual lead glaze, sometimes mottled with manganese and copper.

A fine specimen of Lambeth ware, which perished in the fire at the Alexandra Palace, is mentioned by Solon and others. It bore the legend: "EARTH: I: AM: ET: IS: MOST: TRWE: DESDAN: ME: NOT: FOR: SOO: ARE: YOV: Jan. 16th, 1660," and also on a scroll the names "GEORG: AND: ELIZABETH: STERE:" It was boldly painted with shields and emblems.

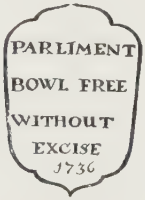
Many of these dishes were painted with Biblical subjects, generally in blue, but sometimes in green, orange, yellow and mauve. In the late Jermyn Street collection was a dish fourteen and a half inches across, representing the walk to Emmaus; in the clouds is the word "GOD," and it bears the date 1653. Another dish is inscribed "ANNO 1654 LONDE," and has the arms of the city of London painted in a bluish neutral. In the Willett collection is a fine dish, with a well-designed border, and the "Temptation of Eve" painted in the centre.

Still another may be found in the British Museum. The centre has a painted subject representing Jacob's dream, and the broad border four oval medallions with allegorical figures. The medallions are divided by panels filled with elaborate arabesque ornament after the Italian manner. It is dated 1660. Many kinds of ware were made at Lambeth. A large trade appears to have been done in apothecaries' wares: pill slabs, drug pots, etc. In the Willett collection are two cats, one blue and the other blue and yellow marked

S	B
RI	R.E.
1672	1674

The imitation Palissy dish at South Kensington has the

accompanying monogram and date, and a large punch bowl, the inscription given.



DELFT, Liverpool. The manufacture of Delft wares assumed considerable importance early in the eighteenth century. Professor Church thinks the stanniferous enamel was first used at Lambeth, then at Bristol and afterwards at Liverpool. There is a Delft mug in the Liverpool Museum dated as early as 1645, which is attributed to Liverpool, but Mr. Church thinks that "the specimens of the seventeenth century which have been assigned to Liverpool are not improbably of Lambeth manufacture". He admits that with regard to Staffordshire a difficulty presents itself, "for there seems to have been a short time near the middle of the seventeenth century when large platters were made there of rough Delft, with coarse coloured paintings of the temptation of Eve, and a few other Scripture subjects. Then there was a gap, not filled up, of a century, but finally Delft ware was re-introduced into the potteries after 1750 to fall again very quickly into disuse."

There can be little doubt that such was the case. The manufacture of Staffordshire Delft was confined almost exclusively to the middle Fenton district, and the name "Lane Delph" was applied to the exact locality where the "Delft" potters worked. It is significant that the locality known as "Lane Delph" was affected by no geographical or municipal boundaries; part of "Lane Delph" being in Fenton Low and part in Fenton Culvert. It is also a curious fact that the name—common enough in wills, leases and other legal documents during the manufacture of Delft wares—fell into desuetude with the decay of the manufacture of tin-glazed wares in Staf-

fordshire, and the name is now obsolete, except as an historical term. It is pretty certain that no cabman in the Potteries would know where to go if he was directed to drive to Lane Delph, and it is extremely doubtful whether the Post Office would deliver a letter thus directed; and there is no record whatever of this name in the first half of the seventeenth century. Stress is laid on this point because we are in sympathy with the extreme caution shown by Professor Church in the attribution of unmarked and undated pieces of English Delft to any particular locality.

Among undoubted examples of Liverpool Delft is the fine bowl in the Hanley Museum. It is over twenty inches in diameter, and is painted in blue by John Robinson at Seth Pennington's Pottery at Shaw's Brow. There is a similar one at South Kensington.

A plaque painted with a "West prospect of Great Crosby" is dated 1716, and is certainly of Liverpool make. There is another plaque of old Crosby Church, dated 1722, and bearing the arms of the Merchant Taylors Company. Other pieces bear dates ranging from 1716 to 1780. Punch bowls were made in large quantities, Shaw and Pennington being celebrated for their manufacture.

A mug or tankard in the Liverpool Museum bears the initials and date I.P.R., 1728. A large mug in the same collection is signed with the initials of Thomas Fazackerley, a Delft artist at Shaw's pottery. A smaller mug bears those of his wife, Catherine Fazackerley, the dates 1757 and 1758 respectively.

In one respect Liverpool excelled all other centres of production, *viz.*, in transfer printing on Delft. This was due in a great measure to the enterprise of Sadler & Green, who

established a printing works at Liverpool as early as 1750. They printed a great number of tiles (generally five inches square), better potted and more durable than the Dutch tiles of the same period. There is a panel in the South Kensington Museum with representations of theatrical characters; these subjects appear to have been extensively applied to tiles.

John Sadler and Guy Green worked independently at the outset, and their signatures occur on some specimens, thus:—

Sadler, Liverpool. Green, Liverpool.

J. Sadler, Liverpool.

DELFT, Staffordshire. Staffordshire Delft is said to have been introduced by Thomas Heath in 1710 near the middle of Professor Church's suggested hiatus of a century. Whether Heath revived the manufacture of Delft wares or not, it is difficult to believe that the numerous plaques painted with roughly executed portraits of William III., William and Mary, Queen Anne and the Duke of Marlborough could have been produced thirty or forty years after these personages flourished.

It is Simeon Shaw who credits Heath with the inception of Delft wares, and he describes a dish which has the upper surface tolerably even but the under surface covered with minute holes showing the coarse material of the body. The Staffordshire Delft wares are unfortunately very seldom dated, but the conditions attending their production afford some evidence concerning the period. The designs and the style of execution are ruder than the other makes of English Delft. The clouds and foliage appear to have been done with a small sponge and the rims of the plaques and dishes are marked with heavy oblique brush strokes, a convention which, as far as we can discover, is peculiar to Staffordshire Delft. The body was very coarse and altogether unsuited to the production of skilfully potted wares, which were beginning to be esteemed in the second quarter of the eighteenth century. In Staffordshire, as in Bristol, a number of years later, the delicately potted cream wares having the additional advan-

tage of being adapted to domestic purposes, entirely drove the Delft wares out of the market. Besides this, the cost of the tin was an important matter, and we may safely assume that by 1750 the manufacture of "Delft" in Staffordshire was only carried on in a sporadic fashion.

DELLA ROBBIA COMPANY. These works were established by Mr. Harold Rathbone at Birkenhead in 1886. The productions of the firm were, as its title indicates, on the lines of the old Italian majolica. Ornamental goods, such as plaques, dishes and vases were chiefly made. The designs were sound and original, and the glazes and colours rich and harmonious. For some unknown reason (perhaps among others the fact that decorations of the Italian Renaissance type were for the moment out of vogue) the venture was not commercially successful and the works were closed in 1901.

DE MORGAN, WILLIAM. A maker of lustred wares of extremely fine character and quality. Mr. De Morgan commenced in Fitzroy Square a little before 1870 and worked afterwards at Chelsea. He associated himself in 1888 with a well-known architect, Mr. Halsey Ricardo. A factory was established at Sands End, Fulham, the firm working under the style of W. De Morgan & Co. Mr. De Morgan is a member of the Arts and Crafts Exhibition Society, at whose Triennial Exhibitions his work is regularly to be seen. In a case of modern pottery at the Victoria and Albert Museum there are several examples by him, notably a tall bottle decorated with ships, etc., in blue and lustre, that will bear comparison with the best examples of the great periods of the art. The marks are a tulip with D M above, and "W. De Morgan" for the work executed at Chelsea.

DENABY, Yorkshire. About 1864 a pottery was established here by Wilkinson & Wondle, the latter of whom had been employed by Messrs. Alcock of Burslem. Ordinary earthenware was manufactured of average quality. The Staffordshire

Knot was used as a trade-mark and the works were closed in 1869.

DENBY. A pottery near Derby for the production of stone bottles and similar wares, under the direction of Mr. J. Bourne, who attempted the production of a better class of ware. Some good examples of stoneware were exhibited by him in the 1851 Exhibition. The works were founded by a Mr. Jäger in 1809, some excellent clay beds having been discovered. This clay had been used previously at the Belper Pottery, and was also supplied to the Derby China Works for the coarser wares. Mr. Joseph Bourne, who was the son of the proprietor of the Belper Works, succeeded Jäger in 1812, and the two works were carried on together. In 1834 the Belper Works closed, the plant being removed to Denby. A year previously, however, Mr. Bourne had acquired the Codnor Park Works which had been built in 1820 by the Buttery Iron Company. These were carried on by him until 1861 when they also were closed and the plant removed to Denby. In 1845 a fourth works were acquired and worked for eleven years, and the plant of these works also removed to Denby. The son of Mr. Bourne having entered the business the style of the firm became Joseph Bourne & Son. The name is still retained, although Mr. J. Bourne died in 1860 and his son nine years later.

A great variety of objects were made, spirit flasks, jugs, ink pots, candlesticks, tobacco jars, etc. In the Victoria and Albert Museum is a small stoneware jug, with rustic figures in relief, stamped "Bourne's Warranted"; also a spirit flask in the shape of a figure of Daniel O'Connell holding a scroll upon which is inscribed "Irish Reform Cordial," stamped on the back, "Bourne's Potteries, Denby and Codnor Park, Derbyshire".

During the Belper and Denby period, *i.e.*, between 1812 and 1834, the mark is as given opposite. It occurs on a similar flask to the above mentioned, but representing instead William IV.

BELPER & DENBY,
O
OOO
OO
BOURNE'S
POTTERIES,
DERBYSHIRE.

Other marks are :—

VITREOUS STONE BOTTLES.
BOURNE & SON,
PATENTEES,
DENBY POTTERY,
NEAR DERBY.

J. BOURNE & SON,
—::—
PATENTEES,
DENBY POTTERY,
NEAR DERBY.

J. BOURNE & SON,
PATENTEES,
DENBY POTTERIES.
—::—
NEAR DERBY.

Jewitt gives an illustration of a small inkstand (stoneware) in the Victoria and Albert Museum, and assigns it to Denby. It *may* have been made at Denby (being stoneware), but it is a copy of an earthenware portrait of Mrs. John Ridgway. Two inkstands were made—portraits of John Ridgway and of his wife ; they are unmarked, but there is no doubt as to their origin. They were the subject of common talk among the workpeople of Cauldon Place in the later fifties, and the family of John Ridgway subsequently bought up all available specimens because they were such good caricatures. The illustration in Jewitt is a travesty of the original. It is, in fact, a caricature of a caricature.

DERBY. Like all the important English porcelain manufactories (except Worcester) the origin of the Derby Works is involved in obscurity. There can be little doubt that Duesbury was the originator of the Derby china business, but the date remains a matter of conjecture.

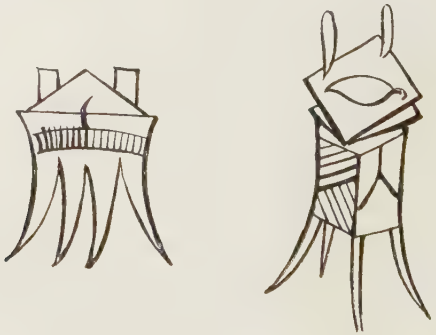
Duesbury was a Staffordshire man, son of a farmer at Cannock Chase, but he appears to have had some business connections with Longton, and is known to have resided at Longton Hall in the autumn of 1755. Chaffers tells us (from information gathered from documents in his possession) that a Mr. J. Heath, a banker, had an earthenware manufactory at Cock Pit Hill. Duesbury seems to have been ubiquitous, and we find him making the acquaintance of a foreigner living in Lodge Lane who made small articles in china, such as cats, dogs, birds, sheep, and small ornamental toys. Duesbury induced Mr. Heath to assist him in taking over and extending the business of this foreigner. The Cock Pit Hill Manufactory declined, and Mr. Heath became bankrupt about 1780.

In 1751 Duesbury began to make china in a manufactory over St. Mary's Bridge, which he had just erected. In December, 1756, there was an auction sale in London lasting four days, by order of the "Proprietors of the Derby Porcelain Manufactory," of a curious collection of fine figures, jars, sauce-boats, services for desserts, after the finest Dresden models. About 1758 the works were considerably enlarged, and the number of persons employed nearly doubled. What little is known of the next ten or eleven years is derived from notices of auction sales of figures, jars, candlesticks and baskets. In 1770 Duesbury purchased the Chelsea Factory, and in 1776 he also bought the Bow Works. The Chelsea Works were kept working until 1784 when the moulds and workmen were removed to Derby. This period, 1770-1784, is known as the Chelsea-Derby period, and to this belongs the mark D, crossed with an anchor in gold. A crown was added to the D mark (with the anchor deleted) in 1773, and the mark was used after 1782 with the

addition of crossed batons dotted between. This mark was continued until 1831, when an imitation of the Sèvres mark, surmounted by a crown, was adopted. As these are all painted marks they vary considerably in size and shape. In the case of vases and figures the mark is usually incised and is often accompanied by the number of the pattern and workmen's marks.

This mark occurs on a plate of oriental pattern in colours and gold. S.K.M.

Imitations of the Chinese four-legged stand or vase mark were occasionally used.



The mark here given is from a transfer-printed *earthenware* teapot in the possession of Mr. A. E. Clarke of Wisbech. It is the mark of Richard Holdship, and the piece doubtless formed part of the stock which was bought from Cock Pit Hill upon the closing of those works.

The chief artists employed up to 1784 were F. Duvivier, P. Stephan, W. J. Coffee, R. Askew, Zachariah Bowman, W. Pegg, Thos. Steel and W. Billingsley, who was apprenticed there in 1774 and continued working at Derby until 1794.

Coloured statuettes were manufactured largely, as well as white biscuit statuettes tastefully gilt. The decorations generally were commendably simple: festoons in pink, deep blue borders with gold foliage, sprigs and other simple arrangements of flowers and leaves.

William Duesbury died in 1786 and was succeeded by his son William, who in 1795 took into partnership Michael Kean, a clever miniature painter.

Duesbury the second died the following year and Kean married his widow, but shortly afterwards withdrew and the business was continued by the third William Duesbury. The mark given indicates the short partnership of Duesbury and Kean, the two following marks the period of the third William Duesbury.

In 1815 the works were leased to Robert Bloor who had been clerk and salesman to the firm for several years. Bloor, having to pay the purchase money by instalments, raised it by the sale of defective pieces which had accumulated and which he decorated for the purpose of sale.

The success of these sales was so great that Bloor was unwisely tempted to produce large quantities of goods for auction. Less care and supervision being exercised in the manufacture, the goods deteriorated and the works declined. Besides this Bloor's mind became affected, and from 1828 he was mentally incapable of taking any part in the business. Two years before his death, which took place in 1846, a statute of lunacy was taken out by Thomas Clarke, a maltster, who had married Bloor's granddaughter. Clarke did not understand the business and he closed the works, selling the whole of the models, moulds, engravings, ware and even the stools and an old clock to Samuel Boyle, a china manufacturer of Fenton.

Boyle appears to have used few or none of his purchases himself but to have sold them to other manufacturers.

Some of the pattern books were bought by Messrs. Davenport, and the moulds and engravings were distributed among a number of china manufacturers. Boyle failing a few years later, the models and blocks were found in a corner of his works, put aside as useless, and were bought by Alderman Copeland who reproduced many of them.

After Clarke's sale a number of the old employees joined together and put into one common stock what money, tools of skill they possessed. The new firm was called Locker & Co., and was changed to Stevenson & Co. on Locker's death in 1859. It was again changed to Hancock & Co. See Hancock, Sampson.

In 1877 Mr. Edward Phillips, one of the managing directors of the Worcester Porcelain Co., joined Mr. William Litherland, the well-known china merchant of Liverpool, and Mr. John McInnes in a scheme for reviving the ancient glories of the Derby Works. A limited liability company with a large capital was formed, and the old poorhouse was purchased and converted into a manufactory. It was three years before it was in working order and any revival of the old Derby shapes and decorations attempted. Mr. Phillips died in 1881 and Mr. Litherland in 1882, and the active control of the works fell into the hands of Mr. Henry Litherland and Mr. Edward McInnes. In 1891 the Duke of Devonshire assisted them in procuring the privilege of adding the prefix "Royal" to their title, and their style is now "Royal Crown Derby Porcelain Co., Limited".

The art director is M. Leroy, an artist whose dainty skill is curiously suited to the traditions of Derby. After the works closed in 1846, Courtney, who was Bloor's London agent, carried on the business in his own name until Clarke sold the moulds.

DERBYSHIRE. There are several stoneware factories at Chesterfield, Belper and other parts of Derbyshire. China factories existed at Pinxton (see Pinxton) and Wirksworth. Chaffers gives Church Gresley (which see) as being in Derbyshire, but it is really in Leicestershire. There are about a dozen potteries at Woodville, which although geographically in Derbyshire, is like the Church Gresley potteries, really a portion of the South-East Staffordshire group.

DE VAERE, JOHN. A modeller for Wedgwood who worked first at Rome and afterwards at Etruria.

DE VIVY. "Blue" painter at Caughley.

DIGGORY. See Alcock & Diggory.

DIGLIS. See Chamberlain, Robert & Humphrey.

DILLON, FRANCIS, & CO., Cobridge. Manufacturers of printed earthenware in 1843.

DILLON, N., Cobridge, 1829. Earthenware. Probably predecessor of above.

DILLWYN. See Swansea.

DIMMOCK, J., & Co. About 1816 Hackwood, son of Wedg-

wood's modeller, entered into partnership with John Dimmock for the manufacture of earthenware. In 1827 Hackwood's name disappears from the firm which was then known as Dimmock & Co. The style of the firm again changed to John Dimmock & Son, and afterwards to Dimmock & Wood, who liquidated about 1878. The works were purchased by Mr. W. D. Cliff of Leeds, who worked it until 1898. Earthenware of good quality and varied decoration was made here. See Cliff, W. D.

DIVETT. There is a pottery at Bovey-Tracey, Devonshire at present worked by a Mr. Divett. Decorated ware is made as well as stoneware.

DIXON. See Sunderland.

DOE. A painter of landscapes and figures at the Worcester Factory.

DON POTTERY, Swinton, Yorkshire. Founded in 1790 by John Green, a potter from Leeds. Cream coloured and marbled white earthenware was produced similar to the Leeds ware, and pierced work, baskets, etc., were also made. From 1810-1812 a small quantity of china was made.

In 1834 Mr. Samuel Barker of the Mexborough Old Pottery purchased the Don Pottery, and in 1851 it became Samuel Barker & Son, who continued business up to 1896. The works are now closed. The old mark is DON POTTERY, both impressed and pencilled. The later one is a lion rampant holding in his paws a pennon enclosed in a garter, beneath which are the initials S. B. & S.

Chaffers gives two other marks, one on a yellow canister of octagonal form with figures in relief, as follows:—

GREEN
DON POTTERY.

The other is on an earthenware goblet.

DONOVAN. The name "Donovan" and "Donovan Dublin" occur on various kinds of ware. Donovan was an agent in Dublin for several Staffordshire firms. He employed a painter

to decorate wares, and occasionally imitated other pottery marks. Jewitt states that he amassed a large fortune and purchased estates in Sussex. In Dublin he obtained the sobriquet of "The Emperor of China".

DONTIL. A painter at Caughley.

DOULTON. John Doulton in 1818 established a stoneware factory in partnership with John Watts at Vauxhall Walk. Stoneware bottles were principally made. In the year 1832 a large business was done in Reform bottles and flasks (see Joseph Bourne), which were flat vessels with necks representing Lords Grey, Russell and Brougham, etc. Henry Doulton was born in 1820. He entered his father's business at the age of fifteen, and succeeded to it in 1846. The firm was then making larger wares, such as sinks and drain-pipes, and the demand for these in large provincial towns led to the establishment of works at St. Helens, Rowley Regis and Smethwick. In 1870 Mr. Doulton's attention was called to the artistic possibilities of his vitreous body with its method of glazing with salt, and experiments were made which gave promise of immediate success. Miss Hannah Barlow, Miss Florence Barlow and Mr. Frank Butler provided decorations which were artistic in type, and which had a great commercial vogue. Mr. Doulton, not satisfied with what were, after all, variations of the Grês de Flandres, produced what is known as "Silicon" ware. This is a vitrified stoneware without glaze, the effects being produced by coloured clays. From 1888-1890 "Carrara Ware," "Marqueterie" and "Crown Lambeth" wares were produced. "Carrara Ware" (as its name would suggest) is a stoneware of a semi-glazed character, with a texture similar to marble. "Marqueterie" also is self-explanatory, consisting of inlays of coloured clays. "Crown Lambeth" is an ivory body upon which delicate underglaze effects are possible, and these are accentuated by repeated glazings. "Lambeth Faience" has the decorations painted under the glaze, and many interesting examples have been produced by Mr. M. V. Marshall and Miss

F. Lewis. Mr. John Eyre, R.B.A., and Mr. A. E. Pearce have done fine mural work for various public buildings in the material known as "Vitreous fresco".

The nineteenth-century development of the Doulton "fabrique" is indelibly associated with the name of George Tinworth, who has probably done more than any other person to make the name of Doulton known.

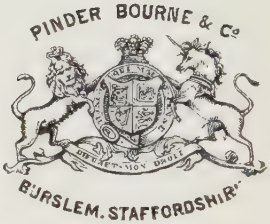
Henry Doulton was created a Chevalier of the Legion of Honour in 1878, and knighted in 1887.

In 1887 the firm entered into partnership with T. S. Pinder of Burslem (see Pinder, Thomas) for the purpose of making fine goods in china and earthenware. This partnership only lasted four years, when Mr. Pinder retired from the firm and the name was changed to Doulton & Co. Mr. J. C. Bailey was appointed manager, a position he has continued to occupy. Over a thousand people find employment at the Burslem Works, and many rich and expensive vases and services are produced. The china is good in quality, and, as at Lambeth, special processes of manufacture and decoration are employed.

Sir Henry Doulton died 18th November, 1897, and was succeeded by his son, Henry Lewis Doulton.

DOULTON
LAMBETH
ENGLAND
} ON SMALL WARE

DOULTON & CO., LTD., Nile Street Works, Burslem, Staffs.



DOULTON

DOULTON & SLATER'S PATENT

DOVIES, H., Pill Pottery. The accompanying marks occur on a pair of seated lions, red body, effectively modelled and covered with a good brown glaze. In the collection of Dr. J. W. L. Glaisher.

H. Dovies Pill Pottery

H Dovis

DRINKWATER, Liverpool. Flourished in the first part of the eighteenth century.

DUCROZ & MILLIDGE, Lane End. Early part of the nineteenth century. Makers of new stone china.

DUESBURY, WILLIAM. See Derby and Longton Hall.

DUNDERDALE, DAVID. See Castleford.

DUNN, BENNETT & CO., LTD., Royal Victoria Pottery, Burslem, Staffs. Earthenware. Purchased the business of Bodley & Son.

DWIGHT, JOHN. This great potter claimed, in 1671, to be able to make china as well as stoneware. His claim occurs

in the specification of his patent, dated 23rd April, 1671, and is thus worded: "John Dwight, gentleman, hath represented to us, that by his own industry, and at his own proper costs and charges, he hath invented and sett up at Fulham, in our County of Middlesex, several new manufactories," etc. "The mistery of transparent earthenware, commonly known by the name of porcelaine or china and Persian ware, as also the misterie of the stoneware, vulgarly called Cologne ware," etc.

In June, 1684, Dwight obtained a renewal of his patent and repeated his claim. The point has been the subject of much investigation and discussion, but whether Dwight really succeeded in making what modern savants choose to call "true porcelain" or not matters little, as his reputation will always rest on his fine stonewares. These mugs, jugs and flagons were tinted in the same style as the Grès de Flandres, with touches of purple and blue. His blue stoneware was stained with zaffre, and he used Staffordshire clay for his red "porcelain," which was probably made in imitation of the Elers's or Böttcher. John Dwight was M.A. of Christ Church at Oxford and must have been a man of considerable learning. At one time he occupied the post of secretary to the Bishop of Chester, and it was doubtless during this period that he made his geological surveys of the counties of Chester and Staffordshire. Dwight died about 1737.

EASTON. A soft artificial porcelain was made at the Easton Works, Bristol, which lived but a short time. In the British Museum is a flower vase (VIII. 59) fluted above, with flowers and foliage at base in relief, made at these works. The ware is unmarked.

EASTWOOD. William Baddeley was a maker of black ware, cream ware, etc., at Hanley. His works were at Eastwood. The wares are marked Eastwood in caps, and also in lower-case letters, impressed. The mark was probably adopted in order to distinguish his wares from those of his brothers, Messrs. J. & E. Baddeley of Shelton.

EDGE, MALKIN & CO. The successors of Messrs. Cork & Edge at the Newport Pottery, Burslem. See Cork & Edge.

EDGE, SAMUEL, Burslem. Stoneware, 1710.

EDINBURGH. There was a manufactory of earthenware at Portobello, near Edinburgh, at the end of the eighteenth century, carried on by Messrs. Scott Brothers. They made dinner and dessert services and marked their wares either "SCOTT BROTHERS" in caps or "Scott P.B.". In the British Museum (R. 37) is a flower-pot of white ware with yellow glaze modelled in relief with acanthus leaves, marked Scott P.B. The factory is still working.

EDKINS, MICHAEL. A Bristol painter of Delft wares. He afterwards (about 1761) abandoned pottery and turned his attention to coach painting, which was then much in vogue, and also to decorative work of a high character. He also did some glass enamelling for the glass works which adjoined the pottery at Redcliffe Backs. In the British Museum is a plate (E. 119) painted in blue with a landscape and figures in Chinese style, presented to the Museum by the grandson of Michael Edkins. A note attached says: "This plate, one of a dessert service, was painted by my grandfather Michael Edkins at Richard Frank's Delft-ware Factory on Redcliffe Back, Bristol. The initials $\frac{\text{E.}}{\text{M. B.}}$ (see Delft, Bristol), are those of Michael Edkins and his wife Betty."

EDWARDS, JAMES, Burslem. Occupied in 1842 the works at Dale Hall of John & James Rogers of blue-printed fame (see Rogers, John & James). Mr. Edwards, who was originally in the employ of Messrs. Rogers, purchased a great variety of ware of excellent quality both for the home and foreign markets. The marks are—The royal arms with the following wording beneath:—

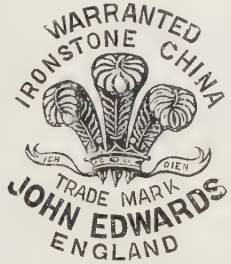
STONE CHINA
JAMES EDWARDS & SON
DALE HALL

The same, with the addition of a dolphin entwined round an anchor. The initials "J. E. & S." in cursive characters surrounded by a circular garter inscribed "IRONSTONE CHINA". The word "Dalehall" in Gothic characters surrounded by an oval garter with the name "JAMES EDWARDS & SON". The same name with "DALE HALL" added, in the centre of an oval garter with the words "IRONSTONE CHINA". The name "EDWARDS" with "D. H." impressed.

Mr. Edwards retired from the concern in 1861 when the business was carried on by his son Richard Edwards, who had previously been in partnership, the old title being continued. The works are at present in the occupation of Messrs. Knapper & Blackhurst.

EDWARDS, JAMES & THOMAS. Occupied the Kiln Croft Works at Burslem between 1825 and 1842 making earthenware of good quality.

EDWARDS, JOHN, LTD., King Street, Fenton, Staffs. Earthenware. The works were closed about 1896. The trade-marks are :—



EDWARDS, WARNER. Made various kinds of ware at Albion Street, Hanley, towards the middle of the eighteenth century. He was the first to introduce into Staffordshire the enamel method of colouring, and supplied enamel colours to the trade twenty years before Wedgwood took out his patent for them in 1769. Died in 1753.

EDWARDS, WILLIAM, Lane End, 1786.

EGG SHELL PORCELAIN. Made in imitation of the

famous Chinese egg shell, which has been made from the Yung Lo period onwards. It is of extreme wafer-like thinness and lightness. A reward was offered by the Emperor to those making it the finest. Its best period was about 1465. It was thrown on the wheel and afterwards reduced to the required thinness by turning. Imitations have been made by Copelands, Mintons, Worcester, and elsewhere. It was also made at Beleek, and is made by W. H. Goss of Stoke.

EGYPTIAN BLACK, or BASALTES. See Wedgwood.

ELERS, the brothers JOHN PHILIP & DAVID. Two Dutchmen of noble family who are generally believed to have come to this country in the retinue of William of Orange. They established themselves at Bradwell where there was a rich vein of red clay on the confines of a small wood about midway between the town of Burslem and the village of Wolstanton. Their staple production was a red unglazed stoneware of fine quality and colour, beautifully finished and turned, ornamented with reliefs which were produced by means of pressure from brass stamps, the reliefs applied to the ware and afterwards finished with the tool. They are also believed to have made a black stoneware which was the precursor of Wedgwood's black basaltes; they are further credited by many writers with the introduction of salt glaze into Staffordshire.

David Elers was, for a considerable time at least, in charge of the London warehouse in the Poultry; John Philip, the elder brother, remaining in Staffordshire, producing and superintending the production of the wares. J. P. Elers took up his residence at Dimsdale Hall, an old half-timbered mansion about a mile and a half from the works at Bradwell. These two places were connected by means of a speaking-tube, some of the pipes of which were discovered a few years ago during alterations in the cellar of Bradwell House, now an inn, on the site of the old pottery. These pipes or tubes are made of pipe clay, jointed in a similar manner to drain-pipes. They were

formerly the property of Mr. G. W. Rhead, senior, and at his death in 1908 were sold at Sothebys.

Of unmarked specimens of the ware, the coffee-pot, cream jug and two mugs in the British Museum (G. 1, 2, 3, 4) are generally attributed to Elers.

Of the seal marks appearing on wares of the style of Elers & Astbury, the first given occurs on an undecorated cylindrical teapot (British Museum, G. 5).

A similar mark reversed occurs on a teapot ornamented with birds, sprays and figures (British Museum, G. 6).

The accompanying imitation Chinese seal mark occurs on a barrel-shaped cream jug, with basket-work on lip and handle, with a cartouche bearing a floral spray and a figure of a mandarin (British Museum, G. 11).

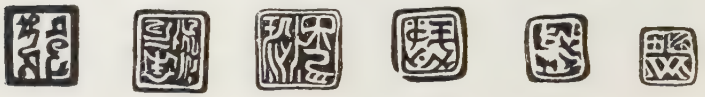
The curious mark here given appears on a cylindrical teapot with figure of Athene, sprays and scrolls; wavy pattern on shoulders and above base; basket-work on handle.

The mark incorporating the letter W is on a milk jug with cover, engraved turned pattern, and is probably that of Wedgwood.

All the foregoing examples are of red unglazed stoneware.

The mark here given appears on a small red ware teapot covered with a coating of green enamel in the Delft style, ornamented with a Chinese pattern of a bluish green. This is a curious example of the application of the Delft system of a coating of enamel, in this case on *red* ware instead of the buff body as in Delft. This is evidently an experimental piece by some potter whose identity it is impossible to determine with any degree of exactness (Victoria and Albert Museum).

These two marks occur on a large and small red teapot respectively in the Victoria and Albert Museum.



1 2 3 4 5 6

The Elers and Astbury marks given above are from the Glaisher Collection.

1. Teapot, Elers's style, late example.

2. Teapot, engine turned, Astbury.

3. Milk jug, engine turned, Astbury. A small coffee-pot in same collection of apparently later make bears similar mark.

4. Teapot, engine turned, showing lozenge-shaped areas, Astbury.

5. Plain coffee-pot, red ware, late example, post-Wedgwood (?) Mark very indistinct.

6. Large coffee-pot, engine turned. Another large coffee-pot in same collection bears similar mark with slight difference. Wedgwood (?).

This mark occurs on a small milk jug in the Glaisher Collection—a typical piece which Elers very conceivably may have made. For other examples of these seal marks, see Astbury.

ELECTRIC AND ORDNANCE ACCESSORIES CO., LTD., Shelton Potteries, Hanley, Staffs. Porcelain for electrical work.

ELKIN, KNIGHT & CO. Potters of the Foley, Fenton under the style of Messrs. Elkin, Knight & Bridgwood, from about 1820. Made the willow pattern and other blue-printed wares. The mark is from a blue-printed dinner service with Chinese views and floral festoons, etc. The style of the firm changed as follows: Knight & Elkin, John King Knight (to 1853), Knight & Wileman, Henry Wileman (from 1856-1864), J. & C. Wileman, J. F. Wileman.

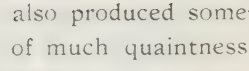
ELLIS, J. A white cup in the Victoria and Albert Museum with figures in relief is impressed "J. Ellis, Bristol".

ELLIS, JOHN, Hanley. Beginning of the eighteenth century. Maker of butter-pots.

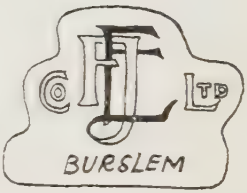
ELLIS, JOSEPH. A pupil of Josiah Wedgwood. Acted as managing partner to Messrs. James & Fletcher Bolton, who started a pottery at Warrington about 1797 for the production of blue and white printed ware, and a black ware of an inferior quality. The firm liquidated in 1812.

ELTON, SIR EDMUND H., Bart. A wealthy amateur, who, towards the close of the seventies, commenced experiments in potting at his residence, Clevedon Court, Somerset, well known as one of the oldest mansions in England. He was attracted to the subject by watching the workmen at the brick kilns near his home, and first endeavoured to make a clay mosaic for church walls, to be coloured, glazed and fixed with cement. He afterwards set up a potter's wheel, constructed from his own drawings. After many fruitless experiments, discarding previous experience, he succeeded in producing a class of ware which is marked by a considerable degree of originality both as regards form, colour and general treatment. It is made of the clay of the district, which is formed of the alluvial deposit on the moors, originally the silt from the Bristol Channel. The glazes are of a rich, unctuous character, the decoration more

or less conventional foliation. He has also produced some open-work potting of an Oriental type, of much quaintness and originality. Elton ware has been medalled at the various international exhibitions and has attained considerable vogue. The mark is the word Elton, as given.



ELTON, J. F., & CO., LTD., Burslem. China and earthenware. Now out of business.



EMERY, F. J. A partner with Edward Clarke at New Bridge Works, Longport. Invented a process of crayon drawing upon the bisque surface of the ware.

EMPIRE PORCELAIN CO., Stoke Road, Stoke-on-Trent.

EVANS, W. L., & CO. Proprietors of the Swan Works, Elm Street, Hanley, 1886-1871.

EVANS, GLASSON & EVANS. See Cambrian Pottery, Swansea.

FELL & CO. See Newcastle-on-Tyne.

FELSPAR. One of the constituents of granite rock. Kaolin or china clay is derived from the decomposition of the potash felspar, known as *orthoclase*. It is employed in the glazing of hard porcelain, and forms one of the constituents of the Parian body. It is also employed in the porcelain body, effecting a greater translucency.

FERGUSON, MILLER & CO., Heathfield Pottery, Glas-

gow. Produced ornamental vases, etc., in terra-cotta, some of which were shown at the 1851 Exhibition. In 1862 the works passed into the hands of Messrs. John Young & Son, who largely extended them and produced fire-bricks, sanitary pipes, etc.

FERMANAGH. See Beleek.

FERRYBRIDGE. A pottery near Pontefract, Yorkshire, established by Messrs. Tomlinson & Co. in 1792. In 1796 Ralph Wedgwood, a cousin of Josiah Wedgwood, became a partner in the concern and was associated with it until 1800 when he retired. The name of the works was Knottingley Pottery until 1804 when it was changed to "Ferrybridge". The firm imitated a number of Wedgwood's productions, and during the partnership of Ralph Wedgwood stamped their wares "Wedgwood & Co."; afterwards the wares were stamped "Ferrybridge". In the British Museum is a tray of cream ware, painted in brown with a leaf border, with turquoise edging, stamped "Wedgwood & Co." Jewitt gives a mark "Ferrybridge" with the D reversed as occurring on green glazed ware.

At present there are three potteries here—Messrs. Sefton & Brown, Ferrybridge Pottery, making earthenware; Messrs. Horn Brothers and Messrs. Poulson Brothers.

S. & B
F. B.

FIELDING, S., & CO., LTD., Railway Pottery, Stoke-on-Trent. Earthenware.

FIFIELD, WILLIAM. An enamel painter of Bristol, born at Bath in 1777; served his apprenticeship to a glass stainer and worked at the Water Lane Pottery for a number of years. The initials W. F. occur on a pint mug in the Victoria and Albert Museum. Similar initials with date 1853 occur on a Bristol

jug at Bethnal Green Museum. A piece at South Kensington is inscribed—"Made 1796, enameled 1841, W. F."

FILLIS. An earthenware manufacturer at Plymouth in 1815.

FINNEY, JOSEPH. Occupied in 1853 the Victoria Works, Longton, built by Ralph Shaw in 1828.

FISHLEY, GEORGE. Established in the early part of the nineteenth century a pottery at Fremington, near Barnstaple, for the production of ordinary red glazed ware, including ornamental wares, fireclay ovens, pitchers, jars, milk pans, etc. George Fishley was in 1839 succeeded by his son Edmund who worked the pottery until his death in 1861, since which date it has been carried on by Mr. Edwin B. Fishley. The mark used on the ovens is as given, impressed in the clay. On ornamental wares the same name is written on the bottom of the pieces.

E. B. FISHLEY. FREMINGTON.

FISON, CHARLES, O., Stowmarket. White brick and tiles.

FLEMING, JAMES. Partner in Cochran & Fleming, St. Rollox, Glasgow, which see.

FLETCHER, T., Shelton. End of the eighteenth and beginning of nineteenth centuries. A set of tiles with transfer-printed subjects in black appear in the Hanley Museum, marked "T. Fletcher, Shelton"

FLIGHT, BARR & BARR. See Worcester.

FLOWER, JOSEPH. A maker of Delft ware at Bristol in the middle of the eighteenth century. In 1755 his works were on the Quay and in 1777 he removed to No. 5 Corn Street. See Bristol, and Delft (Bristol). Jewitt gives a mark, "J. S. F. 1750," as occurring on a blue-printed Delft plate with a

Chinese pattern in the possession of one of Flower's descendants.

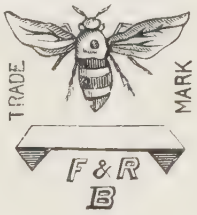
FOGO, C. C. A figure painter of Worcester. Flight and Barr period.

FOLEY Potteries, Longton. See Wileman & Co.

FORD, CHARLES, Cannon Street, Hanley, Staffs. Formerly T. & C. Ford. China.

FORD, SAMUEL, & CO., Lincoln Pottery, Burslem, Staffs. Earthenware.

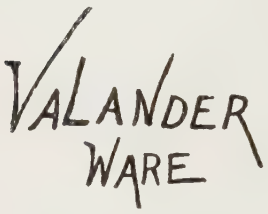
FORD & SONS, LTD., Newcastle Street, Burslem, Staffs. Formerly Whittington, Ford & Riley. Makers of earthenware.



FORESTER, THOMAS, & SONS, LTD., Phœnix Works, Longton, Staffs. This firm produces a large quantity of ornamental earthenware goods after the manner of majolica.

Also makers of China marked "FORESTER". The trademarks are various, and include, besides those given, an ornamental R with the words "Royal Decor.," a circle enclosing

the words "Imperial bone china England," surmounted by a crown, with "T. F. & S. STAFF".



FRANK, RICHARD. See Bristol, and Delft (Bristol).

FREEMAN, WALTER. Occupied the Prince of Wales Pottery, Longton, first in partnership with Benjamin Shirley, after 1863 under the title of Shirley & Freeman, and subsequently with Titus Hammersley (see Hammersley & Astbury) until 1870, when Mr. Freeman retired.

FRICKER, STEPHEN. Potter and publican, proprietor of the Sugar House Pottery at Westbury in 1775. It had previously been in the occupation of George Hart. Coarse brown articles were made.

FROG MUGS. These curious vessels were made at Newcastle and Sunderland in the latter years of the eighteenth century. A model of a frog or toad, coloured, is fixed in the interior of the mug and as the vessel is emptied by the drinker the creature appears to be leaping out. The subjects are usually topical, printed with views, etc., and usually accompanied by verses. The device was, however, an old one. They were made during the slip period. An example occurs in the British Museum in red ware covered white slip, a toad inside. In the same collection is also a mug in "scratched blue" with a mouse coloured brown with white slip eyes. A frog mug inscribed "Newcastle Pottery" is decorated with printed trophies to the memory of Nelson, and inscribed with memorial verses.

They were also made at Leeds and Nottingham.

FRYE, THOMAS. See Bow.

FUDDLING CUPS. Nests of from three to seven cups connected internally, so that the drinker must empty all or none. They were made during the slip period, used at festal gatherings, and usually bear some quaint inscription.

A nest of three cups in the British Museum (D. 116) is inscribed "S. M. E. M. No. the 22, 1736". One with six cups (D. 117), buff ware, ornamented with rosettes, etc., is inscribed:—

"My frend is He That Love me will
But Ho He is I cannot Tall.—I. M. 1770."

On another example (D. 118) the inscription runs: "the geft is small butt good will is all, 1790, fill me ful of Sidar Drink of me. hy . . . rs. sp. im maher." See Slip Wares.

FULHAM. The early history of the historic pottery at Fulham is given under "Dwight". Upon the death of Dwight in 1703 the works were carried on by his widow, Lydia Dwight, until her death in 1709. In 1737 the pottery was in the occupation of Margaret Dwight, the widow of Samuel, eldest surviving son of John Dwight. The daughter of Samuel and Margaret Dwight was also named Lydia, born in 1717. She married first Thomas Warland, a Fulham potter, and afterwards William White. It is believed that the works remained in the hands of Dwight's descendants until 1864 when they passed into the hands of Mr. C. J. C. Bailey, whose family are still working them.

The present productions are stoneware and terra-cotta. A great variety of articles are made, including vases, statues, architectural enrichments, stoves, filters, bottles, etc. The marks are:—

BAILEY, FULHAM.

C. I. C. BAILEY, FULHAM POTTERY, LONDON.

FURNIVALS, LTD., Cobridge. Thomas Furnival, Junr. & Co. were the successors of Reuben Johnson & Co. at works

in Stafford Street Hanley. The firm was Furnival & Clark up to 1851, when Thomas Furnival & Sons occupied the works at Cobridge. It was subsequently transformed into a limited liability company. The firm produce ordinary mercantile wares of good quality, and are famous for their punch-bowls.

FURNIVALS, LTD.,
COBRIDGE
ENGLAND.

GALLIMORE. One of the early proprietors of the Caughley Works, between 1760 and 1772.

GALLIMORE, R. Occupied the St. James's Place Works at Longton from 1831-1842, followed by Shubotham & Webberley, and subsequently Webberley alone.

GALLIMORE, W. W. An able modeller for W. H. Goss of Stoke. He lost his right arm through the bursting of a gun, and afterwards modelled quite successfully with his left.

GARDNER, JOHN. Mentioned in Shaw's *Chemistry of Pottery* as one of the early makers of lustred wares in Staffordshire. Was employed by Thomas Wolfe of Stoke.

GARNER, JOSEPH, Lane End, 1786.

GARNER, ROBERT. One of Whieldon's apprentices. Queen's ware and other wares at Lane End, 1786. The father of Robert Garner made salt glaze at the Row Houses, near the Foley, Fenton.

GARRETT. See Copeland.

GARRISON POTTERY. See Sunderland.

GATER, HALL & CO., New Gordon Pottery, Tunstall, Staffs. Earthenware. Now removed to Overhouse Pottery, Burslem, lately occupied by R. Hammersley. G. H. & CO.

GAURON. A modeller at the Chelsea Works about 1770.

GIARINELLI, J. B. An Italian modeller who worked for Job Meigh of the Old Hall Works, Hanley. His name appears on several figure pieces, notably on a piece belonging to the late Lord Exmouth, mentioned by Chaffers, inscribed "J. B. Giarinelli, Statue and Figure maker, to his Royal Highness the Prince of Wales at the Royal Academy. Figures and animals as large as life. No. 33 Cock Lane, Snow Hill."

GIBBS & CANNING. Established terra-cotta works at Tamworth in 1847. High class architectural decorations are made, those of the Royal Albert Hall and Natural History Museum being instances. An enamelled terra-cotta is also made, after the manner of Della Robbia.

GIBSON & SONS, LTD., Albany and Harvey Potteries, Burslem, Staffs. Earthenware. Large manufacturers of jet and other teapots.

GILBERT, JOHN, Burslem, in 1802. Earthenware.

GILBODY, SAMUEL, Liverpool. Associated with John Sadler and Guy Green in the production of printed tiles.

GILES. A dealer in the Haymarket, in 1768, who decorated and sold Worcester china wares. He advertised himself as the "Proprietor of the Worcester Porcelain Warehouse". He marked his wares with the letter G.

GILL. Established a manufactory at Wirksworth before 1770, making in the first instance earthenware, and copper lustred wares and afterwards porcelain (soft paste).

GILL, RICHARD. One of the syndicate of workmen who occupied a portion of the Castleford Pottery, Leeds, after 1820.

GLASGOW. A number of potteries exist in the vicinity of Glasgow, making earthenware, stoneware, tiles, etc., amongst them being Messrs. J. & M. P. Bell & Co., Ltd., the Campbellfield Pottery Co., Ltd., Cochrane & Fleming, Grosvenor & Son, and John Thompson & Sons.

GLASS, JOSEPH. See Slip Wares.

GLASS, MOSES. See Salt Glaze.

GLASSON. Partner with David Evans in the Swansea Works between 1850 and 1870.

GODWIN, THOMAS & BENJAMIN. Queen's ware and china-glazed blue, 1786-1802.

GODWIN & THYNNE, late GODWIN & HEWITT, Victoria Tile Works, Hereford.

GOODFELLOW, T. The firm of Read & Goodfellow appears in a list of earthenware manufacturers in 1802. T. Goodfellow succeeded Anthony & E. Keeling of Tunstall, and was working two manufactories here in 1828.

GOODWIN & ORTON. This firm is one of the successors of Johnson & Brough, who were potters of Lane End in 1802.

GOODWIN, JOHN, STODDART & CO., China Works, Foley, Longton, Staffs.

GOSS, W. H., London Road, Stoke-on-Trent. Commenced business in 1858 and made Parian and ivory porcelain. The connection of some of his workmen with the factory at Beleek is given under "Beleek". A Parian bust of the Venus of Milo appears in the Bethnal Green Museum

with the impressed mark, W. H. GOSS. Goss is best known by his "heraldic souvenirs". These are small vases and ornaments of Parian, bearing the coloured arms and badges of corporate bodies, universities, colleges, etc. Mr. Goss took enormous pains to acquire correct copies of civic and other insignia, at a time when no collective record existed. The collection of complete sets of these became a cult with many people, and the "heraldic" wares of Goss are widely imitated in England and Germany, and even in Japan.

GOULDING, RICHARD & WILLIAM. See Isleworth.

GOUGH & CO. This mark occurs on stoneware.

GRAHAM. Partner with Richard Abbey in the Herculaneum Works at Liverpool. See Liverpool (Herculaneum).

GRAINGER, GEORGE. See Worcester.

GRAINGER, THOMAS. See Worcester.

GRAINGER, LEE & CO. See Worcester.

GRAINS OF RICE. Perforations resembling grains of rice were made both by the Persians and Chinese. They were filled up with glaze, the pattern remaining transparent.

GREATBACH, DANIEL. An engraver of Stoke. Executed the "Tower" pattern for Spode in 1797.

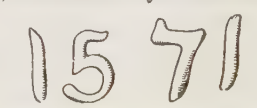
GREATBACH, JAMES, Hanley, 1802.

GREATBACH, WILLIAM. One of Whieldon's apprentices, between 1754 and 1759. A modeller of exceptional ability. He set up in business for himself at Fenton, on premises that now form part of the works of Messrs. Challinor & Co. He made various kinds of ware, but especially teapots, which are referred to by Shaw. He engaged a capable engraver named Thomas Radford who executed a number of plates. A teapot appears in the British Museum (H. 54), transfer-printed, and coloured by hand, on the one side a subject of two ladies visiting a fortune-teller, and on the reverse astronomical charts and inscribed "The XII. Houses of Heaven, Ptolemean Sphere, Copernican System and Published as the Act directs, Jany. 4, 1778, by W. Greatbach, Lane-Delf, Staffordshire". Another

subject was the history of the Prodigal Son, engraved by Radford. Greatbach subsequently became bankrupt, and during the latter years of his life was engaged as modeller by Wedgwood at a high rate of wages, whether at work or play, and house-rent free.

Mr. Frank Freeth has a very interesting teapot, transfer-printed and coloured by hand, on the one side a Harlequin and Columbine with Clown behind, and on the other a gentleman asking the hand of his mistress of her father, marked "Greatbach".

GREEN GLAZE. A lead silicate, coloured by iron and copper silicates. This glaze was probably produced by dusting the vessels before firing, with a mixture of



powdered galena, or sulphide of lead, and iron and copper scales, when metallic silicates would be formed by the silica derived from the body; while the lime, alumina and alkalies would also be obtained from the same source.[1] Green glaze was employed to a more or less extent throughout the mediæval period, but especially during the reign of the Tudors. The earliest dated piece at present known is the puzzle jug in the Victoria and Albert Museum, dated 1571. This is in fact the earliest date which appears on any piece of pottery of English make. Several similar examples exist, one in the Solon Collection, and a fine specimen in the Glaisher Collection, $11\frac{1}{2}$ inches high.

A number of examples covered or partially covered with green glaze appear in the different museums and private collections. They include cisterns, pitchers, jugs, cups, rattles, money boxes, watering-pots, etc., and date probably from the thirteenth century onwards. A curious pitcher or ewer, formed of a knight on horseback, was found at Lewes in 1845, and is now in the South Kensington Collection. It probably dates from

[1] Catalogue of British Pottery and Porcelain, Museum of Practical Geology.

the period of Henry II. Two other puzzle jugs, in addition to the one already referred to, appear in the same collection, one dated 1601 and the other inscribed "John Wedgwood 1691".

1601

John Wedg Wood 1691

GREEN, the Minerva Works, Fenton, occupied in 1812 by Charles James Mason, passed into the hands of Messrs. Pratt & Co., succeeded by Messrs. Gerard & Hassall. About 1834 Mr. Hassall was in partnership with Mr. Thomas Green. Hassall shortly afterwards retired, and the firm was Green & Richards until 1847 when it was carried on by Thomas Green alone until his death in 1859; from this date it was worked by his widow, Mrs. Margaret Green, under the style of M. Green & Co. and afterwards T. A. & S. Green. It is now the Crown Staffordshire Porcelain Co., Ltd., which see.

M. GREEN & CO.

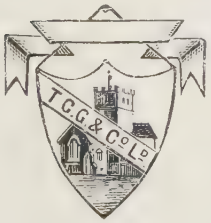
T. A. & S. GREEN.

GREEN, GUY. Partner with John Sadler at Liverpool.

GREEN, STEPHEN. See Lambeth.

GREEN, THOMAS. Occupied the Churchyard Works, Burslem, in 1795.

GREEN, T. G., & CO., LTD., Church Gresley, near



Burton-on-Trent. Makers chiefly of yellow wares, and under-glaze rice dishes for Eastern markets. These are characteristically done in under-glaze free hand brush-work, and though exceedingly cheap, some of the patterns are bought by people of taste for their decorative qualities.

GREEN, VALENTINE. A pupil of Richard Hancock at Worcester.

GREENHEAD, Burslem (?). Referred to by Shaw, who says a pottery of this name was worked by W. & John Taylor about 1750. They made salt glaze and other wares.

GREENS, BINGLEY & CO. See Rockingham.

GREENS, CLARKS & CO. See Don Pottery.

GREENS, JOSHUA, JOHN, SAVILLE & EBENEZER. Partners in the Leeds firm of Hartley, Greens & Co. See Leeds.

GREY, GEORGE. A skilful china figure painter, one of six students sent to study at Marlborough House. Worked for Mintons about 1850-1860. He painted a series of enamel plaques of classical subjects and amorini after the manner of Sèvres for a cabinet which was exhibited in the Paris Exhibition of 1855 and is now at Bethnal Green Museum.

GREYBEARDS. See Bellarmines.

GRIMWADES, LIMITED, Winton, Stoke, Upper Hanley,

and Elgin Potteries, Stoke-on-Trent. A large syndicate controlling china, earthenware and majolica manufactories. The trade marks of the various works are given.

GRINDLEY, W. H., & CO., Tunstall. Earthenware. Large exporters to America, and widely known for excellence of pottery, material and decoration.

GUEST, THOMAS, Burslem, 1802.

GUNTHER, E., & CO. Chaffers gives the mark of Gunther & Co. in a semicircular ribbon, with the initials S.B.B. as appearing on an earthenware jug, in the form of a helmeted head, drab glazed, in Lord Cadogan's Collection.

GWINN, JAMES. An Irishman (Co. Kildare) who came to London about 1755 and designed for the enamel works at Battersea.

GYLES, JOHN. See Giles.

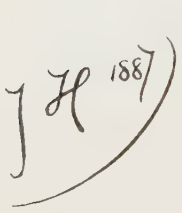
HACKWOOD, WILLIAM. One of Wedgwood's chief modellers, principally of portraits, of which he executed a great number. Amongst these are—Medallion bust of Garrick, 1777, marked Wedgwood & Bentley, and signed Wm. Hackwood. Bas-relief Triumph of Bacchus, 1776, marked Wedgwood & Bentley. Cameo, black relief on white ground of a chained negro kneeling, made for the Society for the Abolition of Slavery. Examples of these are in the British Museum (I. 81, 575, 683).

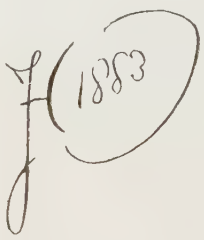
HACKWOOD, W., & SON. Proprietors of the New Hall Works, Shelton, from 1842-1856. See New Hall.

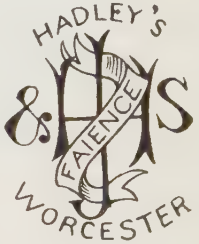
HADFIELD. A landscape painter at Pinxton.

HADLEY, JAMES, Worcester. Born in 1838, apprenticed at the Royal Porcelain Works. Was employed for some time entirely in connection with the Worcester Works and in 1875 started business on his own account as a designer and modeller. He was for some time modelling master at the Worcester School of Art, where he was associated with Thomas Brock,

R.A., who was then employed at the Worcester Works. In 1896 he commenced manufacturing his own wares, and has produced a number of things which are characterised by refinement and good taste. Among the more successful of his works are a pair of Japanese figures modelled for the Worcester Works. Mr. Hadley's sons were taken into partnership with him, and the firm was incorporated in 1900. His monogram and marks are given.







After some years' successful production of very artistic wares, the firm of James Hadley & Sons became incorporated with the Worcester Royal Porcelain Factory.

HALES, T., Cobridge, about 1785. T. Hales was for a time partner with Voyez, the French modeller. In the British Museum is a modelled vase of cream ware, with acanthus leaves in relief at foot, vine handles and two grotesque heads, doubtless modelled by Voyez, marked "Voyez & Hales fecit".

VOYEZ & HALES fecit.

HALL. An English potter who settled at Gien in 1820 and founded a pottery there. Imitations and reproductions of old Rouen and Strassburg ware were made for a short time. The factory still exists.

HALL, RALPH, Tunstall, Swan Bank Works. One of the

numerous potters who at the latter end of the eighteenth and beginning of the nineteenth centuries made the blue-printed wares with American and other views. Succeeded by Podmore, Walker & Co.

HALL, JOHN, & SON. This firm was potting in Burslem at the Sytch Factory in 1829.

HAMILTON. See Wolfe, Thomas.

HAMME, JOHN ARIENS VAN. A Dutch potter who settled at Lambeth and took out an English patent on 23rd April, 1671, for the "art of making tiles and porcelain and other earthenwares, after the way practised in Holland".

HAMMERSLEY, JOHN, Hanley, 1802. The firm of Billings & Hammersley also appears.

HAMMERSLEY & ASTBURY. See Astbury, Edward.

HAMMERSLEY & CO., Sutherland Road, Longton, Staffs.

HAMMERSLEY, J. & R., New Street, Hanley, Staffs. Earthenware. J. T. H.

Successors to Harvey Adams. Makers of excellent china characterised by good taste in design.

HAMMERSLEY, R., & SON, Overhouse Pottery, Wedgwood Place, Burslem, Staffs. Makers of good class earthenware; ceased business in 1905. The premises are now occupied by Messrs. Gater, Hall & Co.

R. H. & S.

HAMMOND, EDWARD. An artist who was employed at Mintons Art Pottery Studio, Kensington Gore, in 1871. He designed among other things a set of tiles of musicians in mediæval costume, which were etched, printed, and afterwards

painted in blue by hand. They were subsequently modelled in low relief at Stoke, glazed with blue and brown.

HAMPSON, JOHN. An enameller of Lane End in 1802.

HAMPTON & SON. Successors to Thomas Twyford at the Eastwood Works, Hanley, up to 1864.

HANCOCK, GEORGE & JOHN. Flower painters at the Chelsea-Derby Works.

HANCOCK, JOHN, Etruria. Born about 1757. Is credited by Shaw as being the first to introduce bronze lustre in Staffordshire.

HANCOCK, ROBERT. An extremely skilful engraver of Worcester; studied under Ravenet, who was an engraver at the enamel works at Battersea. See Worcester.

HANCOCK, S., & SONS, Wolfe Street, Stoke-on-Trent. Commercial earthenware.

S. H.
S. H. & S.
B. & S. H.

HANCOCK, SAMPSON, Old Crown Derby China Works, King Street, Derby. On the closing of the old Derby works in 1849, a small factory was started with Mr. Locker as managing partner. This still continues, and is carried on by Mr. Sampson Hancock, whose great-great-grandfather was apprenticed to the first William Duesbury.

HANCOCK, WILLIAM. A modeller for Brownfields, about 1855. One of his more successful works was a stoneware jug with the arms of England, Ireland, Scotland and Wales.

HANDLEY, A. A figure painter at Worcester in 1879; subsequently he removed to Stoke and worked for several manufacturers.

HANDLEY, J. & W. Successors of Charles and Ephraim Chatterley, who manufactured in Hanley, 1780-1802. In 1848 the works were taken over by Thomas Dimmock & Co.

HANLEY, Kiln Croft, Burslem. About 1800.

HANLEY CHINA CO., Burton Place, Hanley, Staffs. Successors to Thomas Bevington (whom see). Now out of business.

T. B. & CO.

HARDING, J. & W. See New Hall, Shelton.

HARLEY, T., Lane End. About 1800. In the British Museum (R. 23) is a milk jug, with relief ornament and blue-green glaze, stamped "Harley". The name also occurs on an earthenware jug, in the Willett Collection, Brighton, printed and coloured with a caricature of Bonaparte and the Quaker. On some pieces the mark is "T. Harley, Lane End," in cursive characters. In the Frank Freeth Collection is a white teapot with fluted ornament, stamped "Harley".

HARRIS, MOSES. Engraver of intaglios for Wedgwood, about 1778.

HARRISON, G. Chaffers gives this name as appearing impressed on a blue-painted dish with an open-work border.

HARRISON, JOHN. See Wedgwood, Josiah.

HARRISON, WILLIAM, Burslem, 1710. Mottled wares.

HARRISON & BAKER. See Baker.

HARRISON & HYATT, Stoke, 1802.

HARROP, WILLIAM, Tinkersclough, Hanley. Succeeded Edward Raby in the manufacture of china ornaments with raised "Dresden" Flowers. Raby worked up to 1843.

HARTENBERG. A figure modeller at the Chelsea-Derby Works.

HARTLEY, WILLIAM. Partner in the Leeds firm of Hartley, Greens & Co. See Leeds.

HARVEY, JOHN & CHARLES. Builders in 1799 of the Stafford Street Works in Longton. They manufactured lustre wares in large quantities. Were succeeded by Holland & Green.

HARVEY, ADAMS, & CO. See Adams, Harvey & Co.

HARWOOD, Stockton-on-Tees, 1870.

HASLEM, JOHN. A painter at the Chelsea-Derby Works.

HASSALL, RICHARD. Successor to Pratt & Co. in 1830 at Mason's "Minerva" Works, Fenton.

HASSELLS, ANTHONY, Shelton. Was associated with Joseph Ring of Bristol in 1786 in the initiation of the manufacture of earthenware in that city.

HAWLEY, WEBBERLEY & CO., Garfield Works, High Street, Longton, Staffs. Earthenware. Makers of imitation majolica and earthenware. Now out of business.

HAYNES, G. See Swansea.

HEATH, JOHN, Burslem. About 1751.

HEATH, JOHN & CHRISTOPHER. The earliest known proprietors of the Derby Works. See Chelsea, Derby, and Slip Wares (Tickenhall and Cock Pit Hill).

HEATH, JOSEPH, & CO. Successors of J. H. Clive in 1829 at New Field, Tunstall, a pottery which was built about 1763 by Smith Child. A plate in the Hanley Museum, painted in enamel with the crucifixion, bears the accompanying mark impressed.

Heath

HEATH, LEWIS, Burslem, 1802.

HEATH, NATHAN & JOHN, Burslem, 1802.

HEATH, THOMAS, Lane Delft, 1710. He is credited by Shaw as having introduced Delft wares in Staffordshire.

HEATH, THOMAS. A modeller of Shelton in 1802.

HEATH & BAYNELL, Shelton, 1786.

HEATH & GREATBATCH, Burslem, Staffs. Formerly Buckley & Heath.

HEATH & SHORTHOSE, Hanley, 1802.

HEATHCOTE, C., & CO. A mark occurs with the words "C. Heathcote & Co., Cambria," with the Prince of Wales' feathers. Little is known about this firm; an example marked with the name only, occurs in the Liverpool Museum.

HEMPEL, C. F. A manufactory of blue melting-pots and crucibles was established in Upper Cheyne Row, Chelsea, about 1774. After Hempel's death his widow, Mrs. Johanna Hempel, carried on the works; removed on the expiration of the lease to King's Road, Chelsea, where table services as well as crucibles were made, the works being patronised by Queen Charlotte. Mrs. Hempel became bankrupt in 1797 and the manufactory was afterwards carried on by Messrs. Ludwig & Warner.

HENK, CHRISTIAN. One of the foreign figure painters employed by Mintons: entered their service about 1848 or soon after. Died 1905.

HENK, JOHN. Son of the above. Occupies at present the post of chief modeller to the Minton firm.

HENNYS, WILLIAM. Shaw states that gold lustre was first produced in Staffordshire by a Burslem artist named Hennys.

HERCULANEUM. See Liverpool.

HEWITT, JOHN, Lane End, 1802.

HEWITT & BUCKLEY, Shelton, 1802.

HEWITT & COMER, Lane End, 1802.

HEYLYN, EDWARD. See Bow.

HEYWOOD, Brownhills, Tunstall. In 1829 the works were carried on by Samuel Marsh & Co. In 1837 it was Marsh & Heywood.

HICKS, MEIGH & JOHNSON, Shelton. Messrs. R. & J. Baddeley first occupied the works about 1750 (see Baddeley, R. & J.); they were succeeded by Hicks & Meigh. Afterwards the firm became Hicks, Meigh & Johnson. A fine jug by this firm is among the corporation insignia of Newcastle-under-Lyme.

HILDITCH & SONS, Longton, 1795. Followed closely the china decorations of Spode and Thomas Minton.

HILDITCH, Longton. One of the sons in above firm who went into partnership with a Mr. Hopwood, trading as Hilditch & Hopwood about 1830. They were succeeded by Dale, Page & Goodwin about 1868. Both firms made elaborately decorated and richly gilt china ware.

HILL & CO., Windsor China Works, Longton, Staffs. H. & CO. C. & H.

HILL, JOSEPH. A workman at the Derby Works who used as his mark a triangle.

HILL POTTERY, Burslem. The historic factory of Ralph Wood. It was rebuilt in 1839 and was worked by Samuel Alcock & Co. See Alcock, Samuel, & Co.

HINES BROTHERS, Heron Cross Pottery, Fenton, Staffs. This firm is now taken over by Grimwades, Limited.

H. B.

HINGHAM, DAVID. One of the syndicate of workmen at Castleford, Leeds, who carried on a portion of the works vacated in 1820 by D. Dunderdale & Co. See Castleford.

HOBSON, G., Sneyd Pottery, Albert Street, Burslem, Staffs. Earthenware.

TRADE MARK
HOBSON
B

HOLDCROFT, JOSEPH, Sutherland Pottery, Daisy Bank,

Longton, Staffs. Now HOLDCROFTS, LTD. Make ornamental earthenware in imitation of majolica. The body is coloured to the buff of majolica.

HOLDSHIP, RICHARD. A glover of Worcester. One of the proprietors of the Worcester Works, who afterwards was engaged by Duesbury & Heath of Derby to teach the "mystery of transfer-printing". See Worcester and Derby.

HOLDSHIP, JOSIAH, younger brother of above. An engraver of Worcester who wrongly received the credit for the mug with portrait of Frederick the Great. The two brothers owned between them nearly one-fourth of the capital of the company.

HOLLAND, JAMES. This distinguished landscape painter was born at Burslem in 1800, apprenticed at Davenports, abandoned pottery and came to London in 1819 where he made a great reputation as a water-colour painter. Died in 1870.

HOLLAND, THOMAS, Burslem, 1786 and 1802. Black and red china ware. Holland & Co. were also potting in Burslem in 1802.

HOLLAND & GREEN. Occupied the Stafford Street Works in 1853. The works were built in 1799 by John and Charles Harvey, succeeded by Messrs. Hulme & Hawley, afterwards by Messrs. C. & W. K. Harvey until 1853. Messrs. Holland & Green's mark is the Royal Arms with the name or initials of the firm.

HOLLINGSHEAD, J. A teapot appears in the Liverpool Museum bearing an incised inscription to the effect that it is the first teapot that ever was pressed. "J. Hollingshead, 175—." In the Wedgwood Institute, Burslem, is a teapot of cream ware, inscribed: "The first moulded Teapot ever made in the poteries. Modelled by J. Hollinshead."

HOLLINS, MICHAEL DAINTRY. See Mintons.

HOLLINS, SAMUEL, Shelton. Made red ware from the fine clay of Bradwell. He became one of the partners of the New Hall China Works, trading under the style of Hollins, Warburton & Co. See Warburton, and New Hall. Succeeded by his sons, T. & J. Hollins.

S HOLLINS

HOLLINS, WARBURTON & CO. See New Hall.

HOLLINSHEAD & GRIFFITHS, Chelsea Works, Moorland Road, Burslem, Staffs. Earthenware. Now out of business.

HOLLINSHEAD & KIRKHAM, Unicorn Pottery, Tunstall, Staffs. Earthenware.

H. & K.
TUNSTALL.

HOLLINSHEAD & KIRKHAM
TUNSTALL
ENGLAND

HOLLOWAY, THOMAS & WILLIAM. Printers at Worcester. (Flight, Barr & Barr, 1819.)

HOLMES POTTERY. A manufactory near Rotheram, on the Holmes Hall estate. The successive proprietors are, Messrs. Earnshaw & Greaves, Dickinson & Jackson, Thomas Jarvis, John Jackson & Co. Productions—ordinary white and blue-printed earthenware.

HOLMES & SON, Clayton Pottery, Longton, Staffs. Earthenware and China. Now out of business.

H. & S.
LONGTON.

HONEYCHURCH, JOHN & THOMAS. See Bovey Pottery, Ltd.

HOPE & CARTER. This firm was established at Burslem by Mr. John Hope, who had been a partner in Pinder, Bourne & Co. Upon the dissolution of the partnership of the latter firm Mr. Hope started business in company with Mr. Carter at the Fountain Place Works where they manufactured earthenware.

HOPKINS & VERNON, Hill Pottery, Burslem, the first half of the last century. Earthenware. Were succeeded by Richard Alcock, who was in turn succeeded by Burgess & Leigh. The works are now occupied by S. Johnson and A. J. Wilkinson.

HOPWOOD. See Hilditch.

HORKESLEY, Staffordshire. Jewitt quotes as follows from the household books of Sir John Howard in 1466: "Watekin bocher of Stoke delyvered of my mony to on of the poteres of Horkesley IVs VId to pay hemselfe and his felawes for XI dosen potes".

HORN, JOHN, Brimleyford, 1802.

HOROBIN, MR. Lustred wares, Tunstall, and afterwards Lane End. Mentioned by Shaw.

HOT LANE, Burslem. Two Dutchmen settled here about 1750 and are credited with being the first to practise enamelling upon salt glaze. See Salt Glaze.

HOUNSLOW. A pottery was working here during the latter years of the eighteenth century which made slip and other wares. Professor Church (*English Earthenware*) refers to a tea jar in the collection of the late Dr. Diamond, marked "Hounslow" together with the date 1796. In 1825 the factory at Isleworth is said to have been transferred to Hounslow, and two years later the Hounslow Works were removed to Mold in Wales.

HOWSON, GEORGE, & SONS, LTD. Present occupiers of the Eastwood Sanitary Works, Hanley.

HUDSON, W., Sutherland Pottery, Longton. China.

HUGHES, E., & CO., Opal China Works, Fenton, Staffs. China.

HUGHES, SAMUEL, Lane Delph, 1802.

HUGHES, WILLIAM. Modeller at Lowestoft, who subsequently went to Worcester.

HUGHUES-PROTAT. An able French modeller at Mintons who was working for the firm between 1850 and 1858. He modelled a number of vases, candelabra, fruit baskets, etc., with cupids.

HULL. See Belle Vue.

HULME, HENRY, & SONS, Garfield Pottery, Waterloo Road, Burslem, Staffs. Earthenware. W. & H. B.

HULME, W., North Road, Burslem, Staffs. Earthenware.

HUMBLE, GREENS & CO. See Leeds.

HÜRTEN, CHARLES FERDINAND. An extremely skilful painter of flowers. Born at Cologne in 1818, worked in the first instance for Sèvres, and, in 1859, entered the service of Messrs. Copeland where he remained until 1897. A large vase, five feet high, was purchased by the Government from the Exhibition of 1862, and was until recently at the Bethnal

Green Museum. Hürten was a long way ahead of the ordinary flower painter of pottery. He made numberless studies direct from nature, wrought with the utmost delicacy of detail. Besides pottery he painted in both oil and water colour, and executed a number of works on silk. He died in London in 1900.

HYLTON POTTERY. A works at North Hylton, near Sunderland, founded in 1762. See Sunderland.

IMAGE PATTERN. This and the "lady" pattern are two stock patterns of an Oriental character at the Bow Works, referred to in Bowcocke's notes.

IMPERIAL POTTERIES. See Lambeth.

IRONSTONE CHINA. In the latter years of the eighteenth century George Miles Mason was potting at Lane Delph (now Middle Fenton) and manufactured a hard earthenware which he called "Ironstone China".

In 1813 Charles James Mason took out a patent for certain improvements in the manufacture, which consisted in using the scoria or slag of ironstone pounded and ground in water, with flint, Cornwall stone and clay, and blue oxide of cobalt. The firm manufactured first under the style of G. M. & C. Mason, and afterwards of C. J. Mason & Co. A great variety of wares were made, including table ware, jugs, teapots and vases. A large cistern for gold-fish appears in the Victoria and Albert Museum. A large vase, Chinese in shape and in its elaborate decoration, a pagoda forming the knob of the cover, appears in the Hanley Museum and other collections. A plate in the British Museum (R. 22) of white ware, blue printed, is stamped "Mason's Cambrian Argil," referring probably to the body being of Welsh clay.

George Miles Mason was a candidate for the burgh of Stoke-on-Trent, in opposition to Josiah Wedgwood and John Davenport who were both returned.

Mason ultimately became crippled in his finances, and in 1851 the patent, plant and entire business were sold to Francis Morley who continued the production of ironstone china.

The business, plant, moulds, etc., were afterwards acquired from Mr. Morley by Messrs. G. L. Ashworth & Brothers of Hanley, who continue the production of this ware, using Mason's original moulds. See Ashworth, Geo. L., & Bros.

Miles Mason adopted a Chinese mark, which occurs on his earlier and more important pieces. "Mason's Patent Ironstone China" also appears on various pieces impressed in caps. The marks given below are the trade-marks of the present firm.

MASON'S PATENT IRONSTONE CHINA.
M. MASON. Miles Mason.
MILES MASON. M. Mason.

ISLEWORTH. Joseph Shore, who is said to be a Worcester man, associated with Richard and William Goulding, established a small factory at Isleworth about 1760. They made porcelain, two specimens of which are in the British Museum (XVI. 1 & 2), and afterwards earthenware of various sorts. The works were subsequently removed to Hounslow, and were closed about 1820. The specimens referred to in the British Museum are small china bowls painted in under-glaze blue with Chinese views.

S. & G.
WM. GOULDING
JUNE 20TH 1770.

JACKFIELD (Salop). Potting at Jackfield dates from a very early period. In the parish register of Stoke-on-Trent "potters from Jackfield" occur as early as 1560. Little is, however, known of its early history. A brown earthenware mug dated 1631 was unearthed in a disused coal pit at Jackfield. The known history commences in 1713, when the works were occupied by Richard Thursfield of Stoke-on-Trent, who carried them on until his death in 1751 and made salt glaze and the ordinary earthenwares of the period. Richard Thursfield was succeeded by his son John, who manufactured until 1772. Accounts are somewhat conflicting; according to Jewitt the works were carried on between 1751 and 1772 by Maurice, the son of John Thursfield. About 1780 John Rose, who had been

apprenticed to Turner of Caughley, bought up the works, and after manufacturing a few years removed the plant to Coalport on the opposite bank of the Severn. See Coalport.

The ware known as "Jackfield" is a coarse red body moulded in relief, coated with a brilliant black glaze and usually decorated with oil gilding and colour work in oil. On very rare occasions enamelling was done. The decorations usually consist of sprays of the vine and other plants, extremely well modelled and disposed on the pieces; indeed, a doubt has arisen as to the origin of the best of these pieces from the circumstances that some of the moulds are precisely similar to those employed by Whieldon in his tortoise-shell ware. It has been suggested that the Jackfield potters procured some of the Burslem moulds or the ware itself, and that the glaze and decorations were added at Jackfield. This black ware, however, was also produced in Staffordshire to a large extent so that it is difficult to identify any except special pieces.

In the British Museum is a jug of black glaze (O. 1) painted in oils with birds and roses, inscribed

"JoBe CorBel ColPt Bonk ShroPSher," and

"Love each other,"

evidently a Staffordshire workman. He is, however, referred to by the very careful compiler of the British Museum catalogue as a "resident in the neighbourhood" (Jackfield). He may have been a resident of the neighbourhood and a Staffordshire man at the same time. Corbet is a well-known Shropshire name; it also often occurs in Staffordshire, but "Jobe Corbel Colpt Bonk Shropsher" is pure Staffordshire dialect and not Shropshire; also the piece must necessarily have emanated from the Coalport Works and not from Jackfield since it definitely states the fact. All factories are called "banks" in Staffordshire.

In the British Museum Collection (O. 3) is a teapot inscribed, "Eliz. Ashwell Woodbridge, 1768".

The site of the old Jackfield Works is now occupied by the

important tile works of Messrs. Craven, Dunnill & Co., successors of Hargreaves & Craven, also tile manufacturers. Messrs. Craven, Dunnill & Co. make all kinds of tiles, both plain, decorated and encaustic, and have employed artists of talent and reputation, some of the designs being of a high character. They also produce good lustres. Their tiles are invariably stamped "Craven, Dunnill & Co., Limited, Jackfield, Salop".

HARGREAVES & CRAVEN

HARGREAVES CRAVEN DUNNILL & CO JACKFIELD

CRAVEN & CO

HARGREAVES CRAVEN DUNNILL & CO JACKFIELD Nr IRONBRIDGE SALOP

CRAVEN DUNNILL & CO LIMITED JACKFIELD Nr IRONBRIDGE SALOP

CRAVEN DUNNILL & CO JACKFIELD SALOP

JACKSON, THOMAS, & CO., Lane End, 1802.

JACKSON, WILLIAM. Made a communication to the Royal Society in 1750 to the effect that the roof of a pot-house at Lambeth belonging to Nathaniel Oade of Gravel Lane was thrown down by the earthquake which occurred at the time.

JAHN, LOUIS H. An able figure painter who came to England in 1862 and was employed by Mintons until 1873 when he assumed the Art Directorship of Messrs. William Brownfield & Sons. In 1900, upon the retirement of Mr. Arnoux, he returned to Mintons as Art Director but remained only for a short period and retired from the practice of art. He now fills the post of Curator of the Hanley Museum.

JOHNSON BROTHERS (HANLEY), LTD., Charles Street Works, Hanley. These works were established in 1758 by William Mellor, who made Egyptian black. He was followed by Toft & Keeling, who made similar wares and who were succeeded by Toft & May, and still later the business was conducted by May alone. Between 1830 and 1880 they were in the occupation of William Ridgway who produced white ware

for the American market. Ridgway was in turn succeeded by J. W. Pankhurst & Co. who carried on a similar manufacture. About 1885 Messrs. Johnson Brothers acquired the works and produced similar wares to those of their immediate predecessors.

JOHNSON, H. & R., Cobridge, Staffs. Tiles. H. & R. J. ENGLAND

JOHNSON, J. An engraver of Liverpool whose name appears on a mug in the Liverpool Museum attributed to Herculaneum.

JOHNSON, DR. SAMUEL. It is recorded in Falkner's *History of Chelsea* that Dr. Johnson, having conceived the idea that he was capable of improving the china body, was allowed a free hand at the Chelsea Works for the purpose of making his experiments, which, however, resulted in failure. Johnson had also a weakness for teapots, and possessed two, holding two and three quarts respectively.

JOHNSON, SAMUEL, Hill Pottery, Burslem, Staffs. Jet and Rockingham. S. J. B.

JOHNSON, THOMAS. See Slip Wares.

JOHNSON, THOMAS & JOSEPH, Lane End, earlier part of the eighteenth century. Made crouch wares as well as salt-glazed stonewares.

JONES, A. B., & SONS, Grafton Works, Marlborough Road, Longton. China and Earthenware.

JONES, GEORGE, & SONS, LTD., Crescent Potteries, Stoke-on-Trent. Established in 1861 at the Old Bridge Works. Stoneware was made at first, and afterwards earthenware, majolica and china. Their "Melrose" ware consists of under-glaze decorations on different coloured grounds and glazed with a rich glaze. Mr. George Jones died in 1893 and the firm is carried on by his sons.

KAOLIN. China clay. The term is said to be derived from "Kaouling" (lofty ridge), a hill east of Chingtêchên, whence some of the material is obtained. In this country the material is prepared from the decomposed granite rocks of Cornwall and Devon, and consists principally of silica and alumina, which, being mixed with petuntze, forms the natural or hard porcelain. William Cookworthy's discovery of kaolin (1745-50) was an event of the greatest importance to the manufacture of china in England.

KEELING, ANTHONY, Tunstall, 1786. Successor and son-in-law to Enoch Booth. One of the syndicate of Staffordshire potters who bought Champions' patent, and worked it at the New Hall Works. A maker of Queen's ware. Was succeeded by A. & E. Keeling.

KEELING, JAMES. Patented in 1796 certain improvements in decorative and glazing processes. He is mentioned by Ward in 1843 as potting in Hanley.

KEELING & CO., LTD., Dale Hall Works, Burslem, Staffs (late Jas. Gildea & Co.). Earthenware.

K. & CO. B. G. & W.

KENSINGTON FINE ART POTTERY CO., Broad Street, Hanley, Staffs. Carried on for some time by John Bevington. Now worked by William Hines, late of Hines Bros.

KENT, JAMES, The Old Foley Pottery, Longton, Staffs. Earthenware.

M. L. & CO.

KERR, W. H. See Worcester.

KERR & BINNS. See Worcester.

KING, JOSEPH. See Slip Wares, Sgraffito.

KIPLING, JOHN LOCKWOOD. The father of Rudyard Kipling, modelled and designed for Messrs. Pinder, Bourne & Co.

KISHERE, JOSEPH. See Mortlake.

KNAPPER & BLACKHURST occupy the factory founded by John and James Rogers, afterwards John Rogers & Son. In 1842 it was in the occupation of James Edwards, and continued by his sons, followed by Knapper & Blackhurst who make ordinary wares.

KNOTTINGLEY POTTERY. See Ferrybridge.

LAKIN & POOLE, Hanley, 1770-1795, and probably later. They made all the current wares of the period, amongst which were "figures in great variety". One of their best-known groups is "The Assassination of Marat by Charlotte Cordé of Caen in Normandy, 1793," which appears in many collections, and is marked "LAKIN & POOLE" (impressed). A few pieces are extant marked "R. POOLE".

Mr. Freeth has two plates of buff ware embossed in relief with floral patterns and coloured, marked "LAKIN". The

plates are of no special artistic interest, and are only valuable as suggesting that Lakin was in business by himself, prior to his partnership with Poole.

In 1795 Mr. Thomas Shrigley entered the business which was carried on for a short time under the style of Lakin, Poole & Shrigley. In 1796 the firm was Poole & Shrigley, Mr. Lakin having either died or seceded from the business.

LAMBETH. Pottery has been produced here from a very early period. The Delft productions are noticed under "Delft, Lambeth."

Coade's Artificial Stone Works at Narrow Wall is referred to under "Coade". The London Pottery, High Street, dates from 1751. In 1840 it was occupied by Mr. James Stiff, who produced, and whose sons still produce, brown salt-glazed stoneware, white stoneware or "Bristol" ware, buff terra-cotta and "porous ware".

There was a [illegible] in Fore Street in the beginning of the nineteenth century carried on by Richard Waters.

The extensive works of Messrs. Doulton are noticed under Doulton.

A pottery for the production of stonewares was established at Lambeth in the early part of the nineteenth century by Stephen Green. A flask in the form of a tipstaff in the British Museum (R. 2) is brown glazed stoneware bearing the arms of England in a gorter and [illegible] and consequently belonging to the early years of the reign of Queen Victoria, is stamped "Stephen Green, Imperial Potteries, Lambeth". A mug in the Victoria and Albert Museum is also stamped "Stephen Green, Lambeth".

Stephen Green, Imperial Potteries, Lambeth.

Stephen Green, Lambeth.

LAMBOTH, WILLIAM. The name occurs on a Lambeth Delft goblet, British Museum, E. 14.

WILLIAM LAMBOTH
1654

LANDRE, [illegible]. An artist who worked for Wedgwood, 1769-1774.

LANE DELPH, now Middle Fenton. The name doubtless arose from the circumstance of Delft wares being made there, either by Dutch potters who settled there, or by native workers producing wares on Delft lines. The name has long ago been abandoned locally.

LANGMEAD, J. See Slip Wares (Sgraffito).

LATHAM, JOHN. A flower painter at Mintons. An example of this artist's work appears in the Bethnal Green Museum, a dessert plate with butterflies and flowers.

LAURAGUAIS, COMTE DE BRANCAS. A French nobleman who took out a patent in 1766 for the manufacture of hard porcelain, thus anticipating Cookworthy's patent by two years.

LEAK, JONATHAN, Waterloo Works, Burslem, about 1800. He emigrated to Sydney and established the first pottery in Australia.

LEASON, GEORGE. Manager to the Mintons firm after it became incorporated upon the death of Mr. Colin Minton Campbell in 1883.

LEEDS. Messrs. J. R. & F. Kidson, the historians of the Leeds Pottery, suggest that the suburb of Leeds called Potternewton was so named on account of extensive Roman potteries having previously existed there. The history of the pottery begins about 1760, at which date it was apparently being worked by the two brothers Green.

In 1774 the firm was Humble, Greens & Co., and in this year the pottery was in a flourishing condition. The leading spirit of the firm appears to have been a William Hartley who joined at some date between 1775 and 1781, when the firm became Humble, Hartley, Greens & Co. Humble retired in 1781. In 1783 two other partners were added, Thomas Wainwright and George Hanson.

The earliest directory of the town was published in 1797 in which the firm appeared as Hartley, Greens & Co.

About 1787 some of the partners of the Leeds Works, includ-

ing John Green and others of the same family, became connected with the Swinton Works, near Mexborough, afterwards known as the Rockingham Works, the two factories being run together, cream ware being made at Leeds and the more ornamental goods at Swinton. Apparently troubles arose, for in 1806 the Leeds party severed their connection with the Swinton pottery.

In 1800 the partners were—William Hartley, Joshua Green, John Green, Ebenezer Green, Rev. F. Parsons, Mrs. Akeroyd, Mary Akeroyd, John Barwick, Thomas Wainwright, George Hanson, Saville Green and Samuel Wainwright, and about this period the annual sales amounted to something like £30,000.[1]

The death of William Hartley occurred about 1818-1820, and, his influence being removed, things began to go wrong, disputes occurred, and about the latter date, 1820, the firm was in Chancery, Samuel Wainwright undertaking the management of the concern for the creditors. In 1825 he became sole proprietor, and shortly afterwards others were taken into partnership and the firm became Wainwright & Co.

Wainwright died in 1834, the pottery being carried on by the executors under the management of Stephen Chappell who had been the head cashier. In 1840 Chappell bought the whole concern for £6,000, taking into partnership his brother James, trading under the style of Messrs. S. & J. Chappell, and seven years afterwards they became bankrupt, the creditors, however, carrying on the works under the management of Richard Britton. In 1850 Britton and a Mr. Samuel Warburton acquired the concern and worked it until 1863, the firm during this period (1850-1863) being Warburton & Britton. In the latter year Warburton died, and Britton, together with his sons, carried on the works until 1878 when they were finally closed. The style of the firm between 1863 and 1878 being Richard Britton & Sons.

Many of the larger Leeds pieces, such as centre pieces,

[1] Church, *English Earthenware.*

candelabra, etc., are quite pretentious in design and in a sense handsome, but perhaps the most distinctive class of ware produced consists of stamped geometrical perforations, often extremely elaborate, the decorations being usually in enamel colours, but a large proportion were undecorated or only slightly so. These perforated patterns were, however, by no means confined to Leeds: Elijah Mayer as well as Wedgwood made perforated ware. Many pieces ascribed to Leeds have been identified as undoubted Mayers. A good deal of transfer-printing was done at Leeds, Messrs. Kidson stating that in 1791 over two hundred pounds' worth of copper plates were in use. Excepting blue printed, the ware was but rarely marked. The earliest marks are:—

LEEDS POTTERY.

This mark was used during the whole period of the firm, occasionally crossed.

Another mark is for the period 1781-1818:—

HARTLEY GREENS & CO
LEEDS POTTERY.

or "Leeds Pottery" in a curve, caps impressed:—

Occasionally the mark was varied in the placing:

On cream ware a secret service mark was occasionally used, a small L. P., probably in order that the dealer might identify it without it being apparent to customers.

Occasionally "Leeds Pottery" in cursive letters is scratched with a point on the clay.

During the period 1863-1878, R. B. & S. in caps (Richard Britton & Sons) within an ornamental circle, which included the name of the pattern, printed in various colours at the bottom of the piece.

Another of Britton's marks was a black letter, capital L, within a Gothic quatrefoil, enclosed in a circle.

In the Victoria and Albert Museum is a jug painted with flowers and inscribed: "Scudmore, 1771," which will serve to give an idea of the character of the painted work at this early date, Scudmore being of course the name of the person for whom the pieces were made.

During its more successful period the Leeds Pottery did a large continental trade. The pattern book, which is of great service as a means of identification of the pieces, being printed in several languages. Pieces appear in several collections, painted with male and female portraits on either side of an orange tree, inscribed "P. V. O. R." with an inscription in Dutch. The portraits are believed to represent the young Prince William V. of Orange and his wife Sophia Wilhemina, whom he married in 1797. It is probable that the ware was painted in Holland although made at Leeds. In the British Museum (L. 3) is an interesting model of a high-backed chair with pierced designs, unmarked.

A number of Quintal flower horns exist of various designs with modelled ornaments, painted in enamel colours. See also Don Pottery and Castleford Pottery.

LESSORE, EMILE. An able French artist (originally intended for the law) who studied under Ingres. Worked for some years at Sèvres where he executed a pair of vases which were purchased by the Emperor of Russia for 1,000 guineas.

He came to Mintons in 1858 where he stayed but a short time, and in the following year entered into an engagement with Messrs. Wedgwood at Etruria. Here he executed a large number of pieces—vases, plaques, trays—in his well-known vigorous style, and worked for them almost uninterruptedly until 1875. He died in 1876. Lessore was one of the few artists, English or foreign, either at Mintons or Wedgwoods who signed their works. His signatures are—Emile Lessore, E. Lessore, the monogram E. L., and a vigorously drawn vase with the word "Wedgwood" underneath. His works command high prices.

LETHABY, W. R. Professor Lethaby has, among his many activities, designed and painted a few examples of pottery, some of which were shown in Arts and Crafts Exhibition of 1906. They are characterised by that refinement of style which we naturally expect from this artist. The examples are painted in under-glaze colour on Wedgwood's earthenware; this firm undertakes the glazing and firing.

LITTLER, WILLIAM. See Longton Hall.

LIVERPOOL. Although pottery has been produced in the neighbourhood of Liverpool from an early period, the earliest productions of which we have any authentic record are the Delft wares (see Delft, Liverpool), which in the beginning of the eighteenth century formed the staple trade of the town. The extensive works of Alderman Shaw were situated in Dale Street. They appear in a map of Liverpool of 1769. Mr. Mayer gives an engraving and description of a large slab, made, he believes, at the works of Alderman Shaw and inscribed "a west prospect of Great Crosby 1716". In the Liverpool Museum is a salt-glazed teapot with relief ornament of the vine, and a bird (the liver). A note which accompanies this example states that Samuel Shaw made salt-glazed ware between 1740 and 1770. Samuel Shaw died in 1775. There was also a Thomas Shaw, said to be his son.

In the *Liverpool Memorandum Book*, or *Gentlemen's, Mer-*

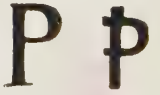
chants', and Tradesmen's Daily Pocket Journal, 1754, it is stated that "the chief manufactories carried on here are blue and white earthenware, which at present almost vie with china".

Zachariah Barnes was a maker of Delft ware, and was born in 1743. He is best known by the small tiles which he made in large quantities. These include a set of theatrical characters taken principally from Bell's *British Theatre*, 1776-1778, printed in transfer, at Sadler & Green's Works in Harrington Street.

Richard Chaffers commenced business about 1752 at a small pot works at the bottom of Shaw's Brow, and did a large export business to the then English Colonies. A painted, dated signature is given under "Chaffers, Richard".

Seth Pennington had a pottery on Shaw's Brow, about the middle of the eighteenth century, where he made Delft wares in the first instance and afterwards china and other wares. There is a large Delft bowl measuring over twenty inches in the Hanley Museum painted by John Robinson at Seth Pennington's pottery. He possessed the secret of a very fine blue, for which he is said to have refused 1,000 guineas from a Staffordshire house. In Sadler's receipt book occurs: "Pennington's body, March 18, 1769—Bone ashes 60 lbs., Lynn sand 40 lbs., flint 35 frit; to every 60 lbs. of the above 20 lbs. of clay".

Pennington's mark was a P painted in gold or colours, and Pennington.



James Pennington was also a manufacturer of china in Liverpool. His son John was apprenticed to Wedgwood in 1784 "to be taught the art of engraving in aquatint". He went to Worcester upon the completion of his apprenticeship and there painted an important service for the Duke of Clarence. He was afterwards heraldic painter and foreman at Fight & Barr's works.

Herculaneum. Was founded about 1794 on the south side of the Mersey, near Liverpool, by Richard Abbey, an engraver who had been in the employ of Messrs. Sadler & Green, in partnership with one Graham. Abbey had been connected with potteries at Glasgow and in France. His connection with the Liverpool concern did not last very long, for, two years afterwards (in 1796), the works passed into the hands of Messrs. Worthington, Humble & Holland, who engaged a number of Staffordshire potters, and founded the colony of Herculaneum. Various kinds of earthenware were produced, mostly blue-printed, but also terra-cotta, Egyptian black, and painted wares; about 1800 china began to be made. The factory seems to have prospered, as several other partners were admitted to the business, and the works enlarged in 1806. The company was dissolved in 1833 and the property was sold and was taken over by Messrs. Case & Mort who leased it from the purchaser, carried on by them until 1836 when Messrs. Mort & Simpson became the proprietors, and worked it until 1841 when the factory was dismantled and the site occupied by the Herculaneum Dock.

The marks are the word "Herculaneum" in caps, both printed and impressed. In the British Museum (N. 2) is a plate of cream ware painted in colours with roses, etc., stamped HERCULANEUM.

R

After 1822 the wares were stamped:—

HERCULANEUM
POTTERY.

The two marks here given, of Herculaneum with crown and

Herculaneum on a garter enclosing a crown, appear on various wares.

The marks used by Messrs. Case, Mort & Co. are—the liver bird with the liverwort in its beak, either as a crest or on a scroll, and an anchor with or without the word LIVERPOOL.

LOCKE & CO., LTD. This firm commenced a few years ago in Worcester to make china.

LOCKEE, JOHN CHARLES. One of Wedgwood's artists working in 1787.

LOCKER & CO. Successors of Bloor at the Derby Works. See Derby.

LOCKETT. T. & J. Lockett appear in a list of 1786 as makers of white stoneware (salt glaze).

J. & G. Lockett were potting in Lane End in 1802. In 1829 the firm was J. Lockett & Sons.

A. J. Lockett is still manufacturing in Longton.

LOCKHART, DAVID, & SONS, Victoria Pottery, Pollokshaws, N.B. Earthenware.

LOCKITT, WILLIAM H., Wellington Pottery, Hanley, Staffs. Earthenware.

LONGTON HALL. The initial history of Longton Hall, like that of its contemporaries Bow and Chelsea, is involved in obscurity. Each suffered, apparently, from a similar malady—that of competition and over-production; each had recourse to the device of periodical sales; each experienced the same fate of financial embarrassment and ultimate bankruptcy. William Littler was the son of a Burslem potter, and was born at Brownhills in 1724. He commenced experimenting early—is said to have tried soon after 1740 to improve the salt glaze. It is certain that Littler was experimenting in salt glaze before he came of age. It is no less certain that he was the first to attempt the manufacture of porcelain in Staffordshire. The rare examples of cobalt blue salt glazed wares occurring in the various museums must be assigned to Littler; most of these are ornamented in either white enamel or oil gilding. Littler, in collaboration with his brother-in-law, Aaron Wedgwood, is also credited with the introduction of fluid glaze, the ware being immersed, instead of the glaze being dusted on in a powdered state. The information we have respecting the association of Littler with his brother-in-law is also meagre. Mr. W. Bemrose says: "There are no records as to when Aaron Wedgwood left Littler—it was, probably, when he closed the Brownhills Works".

The earliest information we have concerning Longton Hall is from an advertisement which appeared in Aris's *Birmingham Gazette*, 27th July, 1752, announcing that "Messrs. Littler & Co. at Longton Hall, near Newcastle, Staffordshire, are making ornamental china and porcelain ware in great variety and in the most fashionable and genteel taste," etc. Notices in the

public newspapers of sales both at the works and in London occurred at intervals, and, in 1759, the works were dismantled, and the plant, it is believed, transferred to Derby.

The precise nature of the relationship between Littler and William Duesbury is also not definitely known, but it is certain that Duesbury was in residence at Longton Hall during the autumn of 1755. The character of the ornamentation of Longton Hall porcelain is that Barocco with which we are familiar in the production of Bow and Chelsea; the blue, which is always largely in evidence, is of a fine quality. In the Hanley Museum is an interesting teapot from the Enoch Wood Collection decorated in an Oriental manner. An accompanying label in Wood's handwriting states that "this was given to Enoch Wood by William Fletcher in January, 1809. He informs me he remembers it being made by Mr. William Littler at Longton, near Stoke, about fifty-five years ago, say in the year 1754. It has never been out of his possession during that time and is highly valued."

The mark most frequently occurring is the two L's reversed and crossed, with one, two, three or four dots, the mark necessarily being slightly varied owing to its being pencilled by different hands. The Chelsea anchor is also said to occur on isolated pieces, and one or two unimportant workmen's marks.

Longton Hall was in Shaw's time in the occupation of the Heathcote family; it is situated about a mile from Longton, and is now divided into tenements.

LONGTON PORCELAIN CO., Victoria Works, High Street, Longton, Staffs. China. Now out of business.

LOVATT & LOVATT, Langley Mill, near Nottingham.

Stone and fireproof ware. Makers of salt-glazed stoneware. Messrs. Lovatt have recently modernised and amplified their decorations.

LOWE, W., Sydney Works, Longton, Staffs.

LOWESBY. A small village about midway between Leicester and Market Harborough where Sir F. G. Fowler, a descendant of an old Staffordshire family, about the year 1830 established a pottery. A vein of good red clay was found on the estate, from which garden pots, baskets and vases in terra-cotta were made. Afterwards decorated ware was produced of a nondescript style of ornament; vases based on classic models were decorated with Greek figures and ornament; tall bottles with ornamentation of a semi-naturalistic character, resembling inlaid woods, were also produced. The factory ended its brief career about 1840. Most examples are marked with the Fleur-de-leys of the Fowler family, either solid or in outline, together with the word Lowesby in caps. Two marked examples appear in the Victoria and Albert and one in the British Museums.

LOWESBY

LOWESBY

LOWESTOFT. In Gillingwater's *History of Lowestoft*, 1790, the origin of the Lowestoft Pottery is given as follows: In 1756 Hewlin Luson, Esq., of Gunton Hall, near Lowestoft, made some discoveries of fine clay on his estate. He sent a sample of it to one of the London factories and it proved to be finer than that of the Delft ware made at the period. He commenced experimenting and procured some workmen from London. He appears to have experienced a good deal of opposition from the London manufacturers who tampered with the workmen.

In the succeeding year, however, Messrs. Walker, Brown, Aldred & Richman purchased some houses in Bell Lane and erected a kiln, but suffered similar opposition from the London firms. Eventually precautions were taken against these practices; a factory was established, and, at the time Gillingwater wrote (1790), the firm was in a good way of business, employed a considerable number of workmen, and maintained a warehouse in London. It traded as Robert Browne & Co. from 1770 onwards. Robert Browne was in 1775 succeeded by his son, also named Robert. An inkstand exists bearing the initials "R. B. 1762".

In 1902 a number of moulds and fragments of the ware were discovered on the site of the old works, and by means of these we are enabled to identify a number of doubtful pieces. Amongst these is a teapot mould inscribed "J. H." and bearing the date 1761. A teapot made in this mould is in the collection of Mr. Merton Thoms, an illustration of it being given in the British Museum Catalogue of Porcelain. It has an embossed pattern painted with vignettes of Chinese subjects in blue.

The paste is an artificial porcelain resembling that of Chelsea and Bow. The earlier period is characterised by imitations of Chinese examples, the subjects freely painted in blue of a fine quality. Afterwards an enamel red with gilding was added to the cobalt blue, and subsequently colours, many pieces being executed in enamel colours alone.

In the Victoria and Albert Museum is an inkstand with simple blue ornament inscribed : M. S.
1767

There is also a bowl with small Chinese figures and other decorations in blue, inscribed inside :

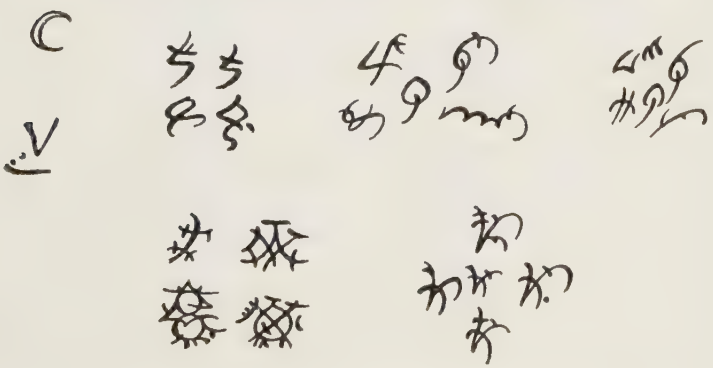
Wilkes
&
Liberty.

In 1802 the manufactory ceased working and the stock was sold. A number of examples appear bearing the names or initials of local worthies. Wedding pieces are also fairly common, the names of the persons appearing enclosed within a heart-shaped form. Birth tablets occur in two or more sizes, recording names and dates of birth as :—

HONNOUR DOWNING BORN OCTOBER 28, 1788	JOHNATHEN DOWNING BORN December 27 1793

Trifles from Lowestoft in the shape of flasks, inkstands, etc., are also fairly common.

The Worcester crescent, disguised numerals, etc., are found on



pieces which are declared by some connoisseurs to be of

Lowestoft make. These, however, are open to question, although it is possible that the crescent was occasionally used. The marks given occur on pieces in the collection of Dr. Jeaffreson.

MACHIN, JONATHAN. Potter of Pitt's Hill in 1802.

MACHIN, JOSEPH. Potter of Burslem in 1802. Shaw mentions this potter as having extensive premises in 1828. A Joseph Machin, enameller, Strand, Burslem, also appears as potting in 1802. Also Machin & Co., Colour Makers, Hall Street, Burslem.

MACHIN & POTTS, Burslem, early part of nineteenth century. Made stone and other wares. In the British Museum is a drab stoneware jug with modelled figure subjects and a bust underneath the spout applied in white porcelain clay, inscribed "Burns". Marked on panel underneath:

PUBLISHED
AS THE ACT DIRECTS
June 20th, 1834, by
Machin & Potts
BURSLEM, STAFFORDSHIRE.

MACINTYRE, JAMES, & CO., LTD., Washington China Works, Burslem. Produced under the able superintendence of Mr. W. Moorcroft a quantity of excellent decorative ware

founded on Etruscan and Roman shapes. The factory dates from about 1847, but had previously been carried on in King Street and Bourne's Bank by Mr. William S. Kennedy,

In 1852 Mr. James Macintyre joined in partnership, and remained until his death in 1868. Subsequently it was managed by Mr. Thomas Hulme who was joined by the late Mr. William Woodall, M.P. The business is still carried on with the old title of James Macintyre & Co., Ltd.

On the earlier pieces the marks "W. S. KENNEDY & J. MACINTYRE" occur occasionally.

McNEAL & CO., LTD., Stanley Pottery, Stafford Street, Longton, Staffs. Earthenware. Now out of business.

MADDOCK, JOHN, & SONS, LTD., Burslem. Useful mercantile wares, chiefly for export. Founded by John Maddock in 1830. The head of the present firm is James Maddock, the only surviving son domiciled in England. Several members of the Maddock family migrated to America and are potting successfully there.

JOHN MADDOCK & SONS LTD
ENGLAND

MADDOCK & CO.
BURSLEM ENGLAND
TRADE MARK

ROYAL SEMI PORCELAIN
JOHN MADDOCK & SONS
ENGLAND

MADELEY, SALOP. Thomas Martin Randall established a decorating works here between 1830 and 1835. He procured china from Sèvres, chiefly through agents in Paris. When

white china could not be obtained it was purchased with light decorations, and these were removed by fluoric acid and more elaborate paintings put on the ware. After a time Randall commenced to manufacture porcelain, in emulation of the Sèvres body. After many difficulties he is reported to have succeeded in producing "the nearest approach to the old Sèvres of any at that time made in this kingdom". It was said that the most experienced connoisseurs found it impossible to distinguish between them "except by the mark," and this, says Jewitt naïvely, "no bribe would induce him to imitate: being a strict Quaker, he had a conscientious objection to doing so". This exposition of the Quaker conscience is curious. It is well known that for upwards of twenty years Randall continuously purchased marked and decorated Sèvres ware from Garman and others, and after polishing away or removing by acid the slight floral decorations, he substituted more elaborate figure subjects. Randall moved from Madeley to Shelton. Here, Herbert Minton was struck with the quality of Randall's decorations, as well as his ware, and made overtures for him to join the Minton firm. Randall declined, although he did some painting for Mintons. His conscience, however, did not prevent his employing some of the Minton artists surreptitiously—one well-known foreign figure painter working for him several years and afterwards leaving Mintons and confining his work to Randall.

Randall died at Barlaston about 1868.

MALING, C. T., & SONS. See Newcastle-upon-Tyne.

MALKIN, BURNHAM. Working in Burslem in 1786.

MALKIN, CLARK, Burslem, about 1750.

MALKIN, RICHARD, THOMAS & ISAAC. These three potters were making "Black" and "Mottled" in 1710, apparently working independently.

MALPASS, WILLIAM. See Rockingham.

MARBLED WARE. See Combed Ware.

MARCHANT, NATHANIEL. A gem engraver and medal-

list, born 1739, died 1816. Worked for Wedgwood. An intaglio of black basaltes in the British Museum of Garrick looking into the face of Shakespeare is signed "MARCHANT F".

MARE, HUGH, Burslem, 1710. "Mottled" wares. He also appears in a list of Hanley potters at the beginning of the eighteenth century together with John Mare.

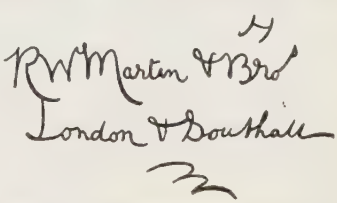
MARE, JOHN & RICHARD. Were potting in Hanley in 1786. In 1802 John Mare was working alone.

MARSHALL & CO., Tunstall, early part of the nineteenth century. A piece in the Mayer Museum is marked as given :—

MARSHALL & CO.

MARTIN, GEORGE. An engraver of Burslem, 1802.

MARTIN, THE BROTHERS R. W., WALTER & CHARLES. In 1872 the eldest of the brothers, Mr. R. W. Martin, who is a sculptor, came to an agreement with Mr. Bailey, the occupier of the historic Fulham Pottery, for the production of pottery of an artistic character. The arrangement did not last very long, and subsequently the brothers started making and firing for themselves at Southall where they are still working. Martin ware is a salt-glazed stoneware of fine quality of colour and surface. Vases, bottles, etc., of a variety of shapes are made, together with a number of grotesques, skilfully modelled. The brothers have a business store in Brownlow Street, Holborn. They invariably sign their productions.



MASON, GEORGE MILES & CHARLES JAMES. See Ironstone China.

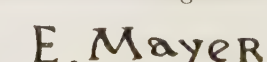
MASONIC MARK. The accompanying mark occurs in relief on a copper lustred jug with raised floral scroll work and white border in relief round the neck, in the collection of Mr. W. Bosanko of Bristol.

MAW & CO., LTD. This firm occupy the Benthall Works, Salop, and are large manufacturers of tiles of an artistic character. Excellent lustred tiles are made, and designs have been furnished by distinguished artists. The marks are :—

MAW & CO. BENTHALL WORKS BROSELEY SALOP	MAW & CO. BENTHALL BROSELEY	MAW & CO. BROSELEY SALOP	MAW & CO. BROSELEY
			MAW & CO.

MAYER. The Mayer family are of great antiquity. From Ward (*History of Stoke-on-Trent*) we learn that Ulviet de Meiri held the manor of Norton-in-the-Moors sixteen years prior to the Conquest. We find the name under its many variations of Meiri, Meir, Mier, Meer, Mere, Meare, Mare, Mayer, occupying considerable space in the different parish registers of the pottery district. Examples of slip wares appear bearing different variations of the name. Dr. Glaisher has a posset pot inscribed "Richard Meir 1682". John Meir was a "pott-maker" in 1721. Hugh Mare and John Mare were potters in Hanley in the early part of the eighteenth century making black and mottled.

Elijah Mayer must take rank among the most distinguished potters of the eighteenth century, but comparatively little is known of him. He was working contemporaneously with Wedgwood and producing similar wares. Shaw states that an Elijah Mayer was potting in Red Street in the early part of the eighteenth century and that he was the father of Wedgwood's contemporary. Elijah Mayer occupied a pottery in High Street, Hanley. He made black basaltes quite equal to Wedgwood, together with a drab stoneware and a fine cane colour. His cream ware, again, equalled Wedgwood's both in the potting and in the delicately pencilled patterns. Elijah Mayer as well as Wedgwood made perforated patterns. Many pieces de-



E. MAYER.

E. Mayer & Son.

scribed as Leeds are really by Mayer, who did not always mark his wares. Examples of Mayer may be seen at South Kensington, amongst others a buff covered vase with festoons and lions' heads, a buff basin with reliefs of cupids, a buff teapot, wicker pattern, seated figure on cover marked "E. Mayer," impressed.

Joseph Mayer, the son of Elijah, occupied his father's works in the High Street. He purchased the Church Works opposite, in 1831, and rented them to his cousin William Ridgway, who, two years afterwards, occupied the High Street Works also. Upon his retirement from business, he filled every available portion of his house with his stock, together with a quantity of his father's productions; these were sold at his death in 1860.

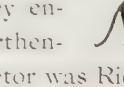
JOSEPH MAYER & CO. HANLEY.

Thomas Mayer belonged to another branch of the family, and was in 1829 potting at the Cliff Bank Works at Stoke, made famous by the former occupation of Wedgwood. He produced a quantity of "blue printed," amongst which was a set of the arms of the different American States with floral borders. These are marked "T. Mayer," and there is also an impressed circular mark with an eagle and "T. Mayer Stoke, Warranted Staffordshire".

The three brothers Mayer, Jos, Thomas and John (Jos must not be confounded with Joseph), succeeded Joseph Stubbs at the Dalehall Works in 1836. They produced an excellent white ware which rivalled Wedgwood in its quality, also an excellent stoneware in which a number of quaint jugs were made. They initiated the practice of printing in several colours on the biscuit. Their wares are impressed "J. T. & J. MAYER" and afterwards "MAYER BROS." Subsequently Mr. Liddle Elliot joined in partnership, and the firm became in turn Mayer Brothers & Elliot; Liddle Elliot & Co., and Keeling Brothers.

MAYER & MAWDESLEY, Tunstall, 1829.

MAYER & NEWBOLD. Successors of Messrs. Thomas & Joseph Johnson at Lane End. They enlarged the works, and made both earthenware and china. In 1837 the proprietor was Richard Newbold alone. The marks are the initials "M & N." in cursive characters, and "Mayr & Newbd".



MEAKIN, ALFRED, LTD., Royal Albert, Victoria, and Highgate Potteries, Tunstall, Staffs. The successors of Turner & Tompkinson. Established 1881. Makers of earthenware of good quality, chiefly for the American markets.

MEAKIN, J. & G., LTD., Eastwood Works, and Eagle Pottery, Hanley, Staffs. Large manufacturers of earthenware, first at Longton, established 1845, and three years afterwards the business was removed to Hanley. Mr. James Meakin, who established the business, retired in 1852 and was succeeded by his two sons, who built, in 1859, the Eagle Works, Hanley. A large American trade is done.

MEIGH, CHARLES. See Old Hall, Hanley.

MEIGH, JOB. See Old Hall, Hanley.

MEIGH & WALTHAL, Hanley, 1802.

MEIR, WILLIAM. Appears in the list of potters who

bound themselves in 1770 not to sell their wares under certain specified prices.

MELLOR, TAYLOR & Co., Cleveland Works, Waterloo Road, Burslem, Staffs. Large manufacturers of white granite, printed and decorated wares. Established 1880. Now out of business.

MIDDLESBOROUGH-ON-TEES. An earthenware manufactory was established here in 1831. From this date to 1844 the style was the Middlesborough Pottery Co., and from that year to 1852 it was the Middlesborough Earthenware Co., when the style became Isaac Wilson & Co. Cream coloured and lustred wares of good quality are produced. The marks are "M. P. & Co." and "I. W. & Co." together with the name of the pattern.

MILES. A slip potter of Staffordshire, *circa* 1685.

MILES, THOMAS. A wine cask in cream-coloured ware supported by four kneeling figures of children, in the South Kensington Collection (2562-'01), is attributed to this potter. See Church, *English Earthenware*.

MINTONS. The founder of the famous Minton firm was Thomas Minton, who was born at Shrewsbury in 1765, apprenticed as an engraver to Thomas Turner of Caughley where he engraved the famous willow-pattern plate. He migrated to London upon the completion of his apprenticeship and was employed by Josiah Spode at his warehouse in Lincoln's Inn Fields. After a comparatively short period he removed to Stoke where he set up in business as a master engraver in 1788, continuing his connection with Spode. He purchased the site of the present Minton Pottery and commenced business as a potter at some short time previous to 1790. He took into partnership a practical potter named Joseph Poulson who had

been Spode's manager, and in 1793 they became associated with Mr. William Pounall of Liverpool, a man of means, who entered the firm as sleeping partner. The firm then became Minton, Pounall & Poulson, the bulk of their productions being printed earthenware. The two partners, however, did not remain long in the business. Mr. Pounall seceded from it in 1800 and Mr. Poulson died in 1809. In 1803, on the failure of the Turners of Green Dock, the services of Mr. John Turner were acquired. In 1817 Mr. Minton took two of his sons into partnership, the elder, Thomas Webb Minton, remaining with the firm only four years when he took holy orders and obtained a curacy at Chesterfield. The younger son, Herbert, remained with the firm until 1828 when he also retired but again joined the firm in 1831. In 1836 Thomas Minton died, leaving his son Herbert in sole possession. In the same year Herbert Minton took into partnership Mr. John Boyle, and from 1836-1841 the firm was Minton & Boyle. In 1845 a nephew of Mrs. Minton, Mr. Michael Daintry Hollins, was admitted into partnership and subsequently also the nephew and heir of Mr. Minton, Mr. Colin Minton Campbell. The firm then became Herbert Minton & Co. During this time both china and earthenware were produced. The manufacture of china, however, was abandoned in 1811 but revived in 1821, and in 1825 a number of skilled workmen were imported from Derby, including the painters Steele, Bancroft and Hancock. In 1828 Samuel Bourne was engaged as designer to the firm, a post which he filled until 1860.

In 1830 the encaustic tile business was commenced, which was afterwards developed to a considerable extent and is still carried on by Minton, Hollins, & Co. Mr. S. Wright took out a patent in this year (1830) for their manufacture, which was at first attended with considerable difficulty, owing to the unequal contraction of the different clays. This difficulty was subsequently overcome by placing a clay of rough texture between two layers of fine clay, thus equalising the contraction.

The pavement in the Houses of Parliament, designed by Pugin, was executed by Messrs. Minton, as well as pavements at Osborne and public buildings throughout the country. In 1840 a patent was taken out by a Mr. Prosser for subjecting powdered clay to high pressure in metal dies; this patent being first employed in the manufacture of china buttons, and afterwards used for tiles.

In 1848 the firm was materially strengthened by the acquirement of the services of M. Léon Arnoux, the well-known pottery chemist, who was then manufacturing at Toulouse, and from this time onwards the character of the productions of the firm underwent a gradual change, their style being to a great extent founded upon the work of Sèvres.

The death of Herbert Minton occurred in 1858, after which event the firm was carried on by Mr. M. D. Hollins and Mr. C. M. Campbell, until 1868, when the partnership between them was dissolved, with the agreement that Mr. Hollins should continue the manufacture of tiles, under the name of Minton, Hollins & Co., and Mr. Campbell the china and earthenware, retaining the name of Minton & Co. The business of Minton, Taylor & Co. of Fenton was then taken over by Mr. Campbell, but owing to the legal difficulties attending the use of the name of Minton with respect to the manufacture of tiles, works were built at Stoke and business was continued under the name of the Campbell Brick & Tile Co. Encaustic and other tiles were and are produced.

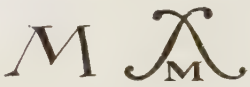
In 1871 an interesting experiment was made by Mr. Colin Campbell in the establishment of an Art Pottery Studio at Kensington Gore, upon land belonging to the Commissioners of the 1851 Exhibition, a five years' lease being granted by them. This studio was first under the direction of Mr. W. S. Coleman (see Coleman, W. S.) and afterwards of Mr. Matthew Elden, who had occupied the post of Art Director at Messrs. W. B. Simpson & Sons. It soon became a fashionable show-place. Much good work was done, including important decorations in

tiles, etc., at Eaton Hall, Cheshire, for which a number of designs of the "Seven Ages," a "Zodiac" frieze, etc., were made by H. S. Marks, R.A. A fire in the summer of 1875 was made the occasion for closing the place.

After the dissolution of partnership, Mr. Hollins devoted himself entirely to the production of tiles. He was a good ceramic chemist and was a member of the Royal College of Surgeons, but never practised. He died in 1898. The business, however, is still flourishing.

Mr. Colin Campbell, after 1868, admitted into partnership his three cousins, Thomas, William and Herbert Minton, great-grandsons of Thomas Minton. After his death in 1883 the firm was transformed into a limited company with John Campbell, son of Colin Minton Campbell, as manager.

The marks of the firm are: a capital M, which is the earliest mark; the crossed S's of old Sèvres, with the letter M. This mark was employed by Thomas Minton for porcelain.



The marks "M. & B." and "Minton & Boyle" occur during the period of the partnership of Mr. John Boyle between 1836 and 1841. On some porcelain services is the mark "M. & B. Felspar Porcelain," with the number of the pattern in red.

The mark given in the margin is one of the numerous marks used for particular patterns. It occurs on a china coffee service, printed with a Chinese pattern and coloured, produced before 1865, since which date the word "MINTON" impressed has been invariably used both for china and earthenware.

The ermine mark either impressed or painted has been used for porcelain since 1851. The small ermine mark impressed in the ware, simply indicates soft glaze.

The globe mark with the word "Minton" in panel was adopted in 1868.

The mark used after the dissolution of partnership in 1868 is the word "MINTON" in brackets, the brackets forming two C's and reading "Colin Minton Campbell".

M. & CO.

H. M. & CO.

M. B.

MINTON & BOYLE
(1836-41).

Other marks are: the word "MINTON" with a royal crown above and three ermines below, the words "Stoke-upon-Trent"

1842	1843	1844	1845	1846	1847	1848
1849	1850	1851	1852	1853	1854	1855
1856	1857	1858	1859	1860	1861	1862
1863	1864	1865	1866	1867	1868	1869
1870	1871	1872	1873	1874	1875	1876
1877	1878	1879	1880	1881	1882	1883
1884	1885	1886	1887	1888	1889	1890
1891	1892	1893	1894	1895	1896	1897

Mintons' Yearly Marks for Porcelain, from 1842 to 1898.

on a ribbon. The word "MINTON" with crown and ermines arranged within a circle.

The yearly marks for porcelain in use between 1842 and 1897 are given. These are impressed in the ware and are here published, we believe, for the first time. They will be found of great service, as by their means the date of any piece during the period which they cover may be readily determined. That for 1898 is the same as 1897 but with No. 3 instead of No. 2.

At Minton's Art Pottery Studio no marks were used except the monogram of the different artists employed, the chief of whom were: Hannah Barlow, John Eyre, Edward Hammond, E. G. Reuter, G. W. Rhead.

MINTON, HOLLINS & CO. After the dissolution of partnership between Mr. Hollins and Mr. Campbell in 1868, Mr. Hollins occupied the tile works and traded in the old style of Minton, Hollins & Co. with the understanding that he should have the monopoly of the tile business, which includes tiles of all sorts, encaustic, tessellated, printed, painted and plain tiles as well as mosaic. The marks are:—

MINTON HOLLINS & CO. PATENT TILE WORKS, STOKE ON TRENT.

MINTON & CO. Patent, STOKE ON TRENT.

MINTON HOLLINS & CO. STOKE ON TRENT.

M. H. & CO.

MIST. An inkstand, black basaltes with engraved turned work appears in the Victoria and Albert Museum impressed "MIST, LONDON".

MITCHELL, FREDERICK, Bellevue Pottery, Rye, Sussex. Earthenware.

MITCHELL, HENRY. An animal and landscape painter at Cauldon Place and afterwards at Mintons. Served his apprenticeship to Mr. Venables of Burslem. Died 1898.

MITCHELL, JOHN. A salt-glaze potter of Burslem in

1736. Aaron Wood, the block cutter, worked for him amongst others.

MOORE, BERNARD, Wolfe Street, Stoke-on-Trent. Has for a considerable time past directed his attention to the production of rouge flambé glazes in emulation of the Orientals, and also of fine lustres. The few examples in the Victoria and Albert Museum will show to what extent he has succeeded. The moulds and engravings belonging to the china ware were sold by auction in September, 1905.

The St. Mary's Works, Mount Pleasant, Longton, were between 1830 and 1859 carried on by Messrs. Moore & Hamilton, when Mr. Samuel Moore became sole proprietor. In 1870 he was succeeded by his two sons, Bernard and Samuel Moore, who traded as Moore Bros. The business is now conducted by Mr. Bernard Moore.

MOORE & CO., Victoria Square, Hanley, Staffs. Earthenware. Now out of business.

M. L. & CO.

MOORE & CO., Wear Pottery, Southwick, successors of Messrs. Brunton & Co. in 1803. Transfer printed jugs, bowls, etc., with lustre appear in many collections, bearing the impressed mark "Moore & Co.," and "Moore & Co., Southwick".

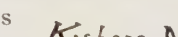
MORGAN, WILLIAMS & CO. Occupied the Overhouse Pottery in 1861.

MORGAN, WOOD & CO. Succeeded above to 1870.

MORLEY, FRANCIS. See Ironstone China.

MORTLAKE. According to Lysons (*Environs of London*, 1792) there were two potteries working at Mortlake during the second half of the eighteenth century. One of these was established about 1752 by William Sanders for the production of Delft and earthenware, and in 1792 was still carried on by his son. In 1811 the firm was Wagstaffe & Co. A punch bowl and a panel of twelve tiles of Sanders ware (blue Delft) are in the Victoria and Albert Museum.

There was also a small manufactory of stoneware founded by Joseph Kishere. This factory was still in existence in 1811. Two examples are to be seen in the Victoria and Albert Museum, one marked "Kishere Mortlake" impressed. Other marks are: "Kishere," and "Kishere's Pottery, Mortlake, Surrey".



MORTLOCK, JOHN. The well-known dealer of Oxford Street and Orchard Street. Messrs. Mortlock have almost continuously, since the middle of the eighteenth century, carried on an enamelling business in London. A great deal of Nantgarw ware was bought by them in the white to be decorated in London and was usually marked John Mortlock. During the eighties of the last century Messrs. Mortlock had a decorating studio in Orchard Street at which several members of the old Minton's Art Pottery Studio, Kensington Gore, were employed.

MOSELEY. The Churchyard Works, Burslem, were occupied by a potter of this name. In the Victoria and Albert Museum is a large teapot of Egyptian black with fluted body and small classic figures impressed "MOSELEY".

MOUNTFORD, ARTHUR J., Salisbury Works, Hanover Street, Burslem, Staffs. Earthenware. Now out of business.

MUCKLEY, W. J. An extremely able painter of flowers in oil and water colour; was for a time master of the Burslem School of Art: has made designs for and decorated a few

pieces of pottery. A plate in imitation of Limoges enamel appears in the Bethnal Green Museum.

MYATT. Southern end of the Foley, Fenton, in the latter half of the eighteenth century; produced white and printed earthenware and red ware. Shaw refers to the fact of John Wesley preaching from his windows, on his last visit to the Potteries. The mark is as given, impressed.

MYOTT, SON & CO., Alexander Pottery, Cobridge, Staffs. Earthenware.

NADIN, WILLIAM. See Church Gresley.

NANTGARW. This is a little village about eight miles north of Cardiff. The brief history of its porcelain works is as follows. William Billingsley, alias "Beeley," whose career is briefly sketched under his name, together with his son-in-law, Samuel Walker, came from Worcester in 1811 and set up a small kiln at Nantgarw. "Beeley" had either acquired the recipe for, or had himself evolved a soft paste of fine translucent quality, but so soft as to render it difficult of firing. They commenced operations with the assistance of William Weston Young, the painter, but these operations having proved unsuccessful financially, the partners, in 1814, appealed to the Government for assistance, Dillwyn of Swansea being invited by the Board of Trade to report upon the subject. After a space of three years, the body having been tried at Swansea and superseded by one which was more practicable, the "parties" returned to Nantgarw.

After a further two years of working, the funds again running short, they were, in 1819, invited by John Rose of Coalport to go there. The body was tried here also, but abandoned as being too expensive, Billingsley, however, remaining at Coalport, where he died in 1828. Young, in 1819, took over the Nantgarw Works with Thomas Pardoe as manager. The factory was still unsuccessful and was closed in 1822.

The son of Thomas Pardoe subsequently re-opened the works for the production of earthenware and tobacco pipes, which productions have been continued to the present time.

The body, as above indicated, was an extremely fine one. It has been stated that Mortlock, the Oxford Street dealer, contracted to take the whole of the output for the purpose of being decorated in London; as a consequence, we find examples bearing the Nantgarw mark decorated by other hands than those which were employed at the works.

"Beeley" was a flower painter, Pardoe was a flower painter; the decorations of Nantgarw were therefore mainly flowers and fruit, of that peculiar convention which was current at the time, and which was then regarded as naturalistic. The best, no doubt, were very good, and are much appreciated by connoisseurs, partly, however, owing to their rarity.

The mark is the word "Nantgarw" in caps impressed, but occasionally painted. The initials C. W. often appear in addition to the name. See Billingsley, Pardoe, and Young.

NAUTILUS PORCELAIN CO., Denmark Street, Glasgow. This concern was established some few years ago for

the production of ornamental porcelain (Parian), figures, etc. "Egg shell" porcelain is also produced.

NEALE, J. One of the many imitators of Wedgwood. Established in Hanley at some time prior to 1770. Neale subsequently entered into partnership with H. Palmer, and together they pirated Wedgwood's productions. A number of black basaltes and jasper pieces appear in various collections marked "Neale," "Neale & Co." and occasionally, chiefly on basaltes, "J. Neale Hanley". The firm also made a number of figures, chimney ornaments, etc. A figure of Diana (5 in.) is impressed "Neale & Co." A toby jug in the Falkner-Sidebothan Collection, copied from the Ralph Wood model, is also impressed "Neale & Co." In 1787 the firm was Neale & Wilson, and a few years afterwards C. Wilson succeeded to the business.

NEALE.
NEALE & CO
NEALE & CO
Neale & Wilson.

NEWBOTTLE POTTERY. See Sunderland.

NEWCASTLE-UNDER-LYME. Tobacco pipes were made here by the Riggs family from the middle of the seventeenth century until 1906. Dr. Plot speaks of tiles for garden edgings being made here by Thomas Wood. William Clarke is known to have potted in Newcastle, probably at a pottery lately unearthed in Lower Street, where some interesting specimens (now in the Council Chamber) were found. Clarke migrated to France, and obtained a subsidy from the French Government to establish the manufacture of English earthenware at Lille. He established branches at Montereau and Creil, and both branches have continued to prosper to the present day. There is at present only one pottery in Newcastle-under-Lyme—Messrs. Baker, late Harrison & Baker.

NEWCASTLE-UPON-TYNE. Potteries were established at St. Anthony's, near Newcastle, between 1780 and 1790. The productions, mostly Queen's ware, lustred and printed wares, bear the mark of "Sewell," "Sewell & Donkin," and "Sewell, St.

SEWELL
SEWELL & DONKIN.
SEWELL
ST. ANTHONY'S.

Anthony's". Chaffers gives the mark "Newcastle" in caps in a semicircular label as occurring on an earthenware fruit-dish and stand with pierced border, painted fruit in the centre, the ware resembling Leeds ware, but lighter in colour. About 1800.

St. Peter's Pottery, also near Newcastle, was established in 1817 by Thomas Fell & Co. Printed cream wares were largely made, characteristic examples being the frog mugs appearing in various collections. The earliest mark was a capital F with an anchor. This was discontinued and the word "Fell" substituted, with variations in the order given.

FELL. NEWCASTLE.

T. FELL & CO.

There were also works called the Sheriff Hill Pottery, carried on by Edward Lewins in partnership with George Patterson.

In 1762 a pottery was established at North Hylton, near Sunderland, by Christopher Thompson and John Maling, producing at a very early date transfer-printed wares. These works passed into the hands of Dixon & Austin and afterwards Dixon, Phillips & Co. of the Garrison Pottery (see Sunderland). The Malings transferred their pottery to Newcastle-upon-Tyne (Ouseburn Bridge) in 1817 and it was carried on by Robert Maling who made ordinary wares and was succeeded by his son C. T. Maling who enlarged the works in 1859, and in 1878 occupied a second factory. The business is continued by the sons of the last named. The trade-marks are given. Another Ouseburn Pottery was established at the beginning of the nineteenth century by Ralph

MALING.

Charlton who was succeeded in turn by his son John Charlton, George Gray, Messrs. Morrow & Parker, Mr. Rogers, William Biakey, and finally, in 1860, it passed into the hands of Messrs. Robert Martin & Co. who continue the productions.

Yet another Ouseburn Pottery was worked from 1860 by John Hedley Walker, who produced ornamental flower-pots, horticultural vessels, and various other articles.

The Newcastle Pottery, or Forth Banks Pottery, was established about 1800 by Messrs. Addison & Falconer, since worked successively by Messrs. Redhead, Wilson & Co. and Messrs. Wallace & Co. Brown ware only is made, but in the first instance white and printed ware was produced. In the Victoria and Albert Museum is a frog mug printed with trophies to the memory of Nelson inscribed with suitable verses and marked "Newcastle Pottery".

NEW HALL. These works were established by a syndicate of Staffordshire potters consisting of Samuel Hollins, Jacob Warburton, William Clowes and Charles Bagnal, who in 1777 purchased Cookworthy's patent from Richard Champion, and traded as Hollins, Warburton & Co. John Daniel afterwards became manager to the concern. They produced the first hard porcelain made in Staffordshire, and sold a quantity in the white to decorators. Mr. G. W. Rhead has a tea service of forty-five pieces made at these works (unmarked), finely enamelled with figure subjects and floral decorations; the figure subjects probably painted by Joshua Christall who served his apprenticeship to John Davenport and afterwards became famous as a water-colour painter.

In 1820 bones were introduced into the body of the ware. The factory closed in 1825. The marks are a cursive "N" incised and "New Hall" in italics within a double circle.

In 1842 the New Hall Works passed into the hands of W. Hackwood & Son, who worked them from that date to

1856. They produced earthenware only. The mark is "HACKWOOD". In 1856 the works were occupied by Messrs. Cockson & Harding, who used their name as a mark, and

Portion of New Hall tea service, in the possession of Mr. G. Woolliscroft Rhead.

"C. & H. LATE HACKWOOD". In 1862 Mr. Cockson retired and the firm became W. & J. Harding Brothers, who worked the factory until 1872 when Mr. John Aynsley of Longton purchased a portion of the works and let it to Messrs. Thomas Booth & Sons who occupied it until 1880.

NICHOLSON, THOMAS, & CO. See Castleford.

NORTHFIELD HAWLEY POTTERY CO., LTD., Northfield Road, Rotherham. Earthenware.

NORWICH. According to Mr. Solon, two Dutchmen, Gaspar Andries and Guy Janson, came over to England and

established a pottery at Norwich in 1570, "after the fashion used in Flanders".

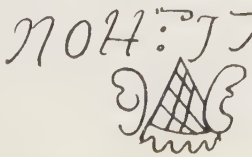
NOTTINGHAM. Pottery was made at Nottingham and its district at a very early period. Several discoveries of kilns and vessels have been made which prove that its production must have been extensive during the fourteenth and fifteenth centuries.

From the closing years of the seventeenth to the end of the eighteenth centuries an interesting brown stoneware was produced, mostly, if not exclusively, by a family of the name of Morley, who had a pottery in Mug House Yard, Beck Street. This ware presents several differences to the Lambeth, Fulham and Staffordshire varieties, its surface is smoother, has less variety, it is more highly glazed, and the glaze itself presents a slight iridescence. Ornament is used sparingly, and scratched or incised inscriptions are a feature. In some instances the date only is inscribed, in others a quotation appears, but more usually the piece is inscribed with the name or names of the recipients. In the *Reliquary*, vol. xiii., is figured an elaborate puzzle posset-pot with the scratched inscription :—

Samuel Watkinson Major of
And Sarah his wife and Majoress Nottingham
17 00

Dr. Glaisher has a jug bearing the date 1702.

In the Victoria and Albert Museum is a small jug with ribbed neck and incised ornamentation, pierced in places, inscribed :—



A similar jug appears in the British Museum undated. A small jug, also at the British Museum, with a glaze closely

resembling Nottingham and rather elaborate ornamentation cut by means of the lapidary's wheel.

In the Victoria and Albert Museum appear also the following pieces :—

A large mug with raised figures, dogs, etc., inscribed :—

On Banse downs a hair wee found
Hall Odus alla Smoaking Round
1729
Wm Morsh

Several variations of this quotation appear.

A christening basin is inscribed :—

November 20 1726

A large mug with raised ornamentation is inscribed :—

Southwell for Ever G
I·H W·M
1739

The initials J. H. also appear scratched on the bottom of some pieces.

A large punch bowl is inscribed round the rim :—

old England For Ever

Dated pieces also occur in various collections up to as late as 1805 by which time the manufacture is believed to have ceased.

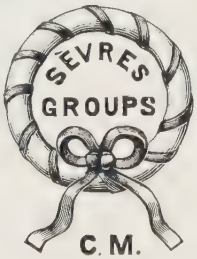
Bear jugs were also made at Nottingham, two examples appearing in the South Kensington Collection.

Ordinary brown ware, however, is still manufactured in and

around Nottingham. Bourne & Son, Lovatt & Lovatt and Parker & Hassell are producing these wares.

OADE, NATHANIEL. A potter of Gravel Lane, Southwark, working between 1718 and 1750. The only particulars known of him are—a quarrel between Oade and his four sons resulting in the shooting of two women and a servant, for which the youngest son was found guilty of murder and hanged (given in the *Post Boy* of 1st March, 1718), and those given under Jackson, William (which see).

OLD HALL, Hanley. Built on the site of the old manor house of the Colclough family. Its first productions are said to be salt glaze, the works being carried on by a Mr. Whitehead. Job Meigh built new works on the site in 1790 and produced a variety of wares, including blue printed. He was succeeded by his son Charles, who produced a set of "American cities and scenery". Charles Meigh was in turn succeeded by



his son Charles, who carried on the business until 1861, when it was incorporated as a limited company under the title of the

Old Hall Earthenware Co. The mark given (dated 1842) is taken from a buff stoneware jug modelled in the neo-Gothic style then in vogue, octagonal in shape, with figures of priests and kings. The "Minster" jug is similar in character, with a group of Charity in front. The Old Hall Earthenware Co. continued to make a good class of earthenware and stoneware, and the works were dismantled in 1903.

O'NEALE. An able painter who is said to have worked for Worcester.

ONIONS, RICHARD, Burslem. About 1750.

OSMOTHERLY, Yorks. A pottery for the manufacture of brown stoneware existed here about the beginning of the nineteenth century. Examples appear in one or two collections.

PACETTI. An Italian artist who worked in Rome for Wedgwood.

PALMER, HUMPHREY. Occupied the Church Works, Hanley, from about 1760 onwards. He made basaltes, cream and other wares in imitation of Wedgwood. He occasionally employed the French modeller Voyez. In the British Museum (K. 11) is a vase of black basaltes with a frieze of Venus, Cupid and Vulcan, signed "Voyez Sculpt 1769" and marked—

MADE BY H. PALMER
HANLEY STAFFORDS. E.

He entered into partnership with J. Neale in 1776, and the business was carried on under the style of Neale & Co. See Neale.

PANKHURST, J. W., & CO. Occupied the Charles Street Works, Hanley, originally worked by William Melior, succeeded in turn by Toft & Keeling, Toft & May, Robert May and William Ridgway. Messrs. Pankhurst produced white granite for the American markets. The mark is the royal

arms with "STONE CHINA" and the name "J. W. PANKHURST & CO."

PARDOE, THOMAS. A native of Derby, born in 1770. In 1791 he was painting at the Swansea Cambrian Factory. He established himself as an enameller in Bath Street, Bristol, between 1809 and 1816, and in Long Row in 1820-1821. He subsequently acted as manager to William Weston Young of Nantgarw. He died at Nantgarw in 1823. Pardoe's works are much appreciated by collectors. He painted fruit and flowers. His work is fully dealt with in *The Ceramics of Swansea and Nantgarw* (W. Turner). He invariably signed his work "T. Pardoe". Good examples appear in the Cardiff Museum.

PARDOE, W. H., son of above. He succeeded his father in the enamelling at Nantgarw, and started the manufacture of earthenware there in 1833.

PARIAN. A translucent biscuit body in the composition of which felspar is employed instead of Cornish stone as in porcelain, and is fired at a relatively lower temperature. It was produced simultaneously about 1840 by Mintons and Copelands, both firms claiming the credit of its initiation. It was immediately received with great favour, and a large number of figures, groups, busts, etc., were produced by both firms and other manufacturers who followed in their wake. Many reproductions were made of the works of well-known mid-Victorian sculptors, as Foley, Gibson, Chantrey, Westmacott and Bell, besides models by the different foreign artists working in the Potteries at the time. There is, however, in the Bethnal Green Museum a group in white biscuit of two children playing with a rabbit, marked in relief "Pubd. by C. Baguley, Hanley, Staffordshire, 20 July 1810," the last figure being obscure, and may be 1810 or 1818. The body of this piece resembles Parian in many particulars, in fact *is* Parian. In the Victoria and Albert Museum is a teapot in a material exactly resembling Parian, presented by Mr. W. H. Goss of

Stoke, who states that it was made by J. Mayer fifty years before the discovery of Parian. Mr. Goss produced a number of busts as well as ornamental wares in the material of Parian.

PARKER, JOHN. A flower painter at Caughley.

PARKER, RICHARD. An artist employed by Wedgwood.

PARKER, THEODORE. A modeller for Wedgwood, 1769.

PARR, SAMUEL. A turner. One of the syndicate of workmen who established china works at Chelsea in 1747.

PARROTT, WILLIAM, Burslem. About 1770.

PARSON, E. A partner in the Leeds Pottery, 1800.

PÂTE-SUR-PÂTE. This is really a development or refinement of the old slip process which has been in existence since the time of the Roman potters and probably earlier. The process consists of applying white slip by means of the brush and afterwards finished with the modelling tool, on the unbaked clay with a coloured ground. The process was revived by M. Louis Robert, the Director of Sèvres, in 1850. It was adopted and practised by Mr. Solon, first at Sèvres and afterwards at Mintons.

PATTERSON, GEORGE. See Newcastle-upon-Tyne.

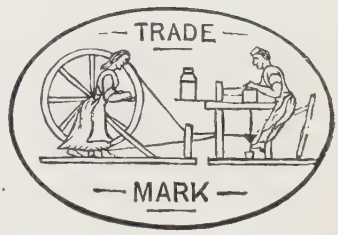
PATTISON, ALFRED. This name occurs in written characters scratched underneath one of a pair of brown stoneware lions, having a metallic lustre similar to that of Nottingham ware. Collection of Dr. Glaisher.

PAYNE. China services, etc., exist with printed views of Stonehenge and Salisbury Cathedral marked "Payne, Sarum" in caps. Mr. Payne was a dealer of Salisbury who had the wares printed to his order and stamped.

PEARL POTTERY CO., LTD., Brook Street, Hanley, Staffs. Earthenware.

PEARSON & CO., Whittington Moor Potteries, near Chesterfield. Stonewares.

P. & CO.



PEARSON & HANDCOCK. Occupied the Abbey Pottery, Cobridge, from 1846-1872. They were succeeded by Henry Meakin who worked the pottery until 1879 when Wood & Hawthorne succeeded. The factory is now abandoned, owing to colliery operations undermining it.

PEGG, WILLIAM. A Quaker. Flower painter at the Chelsea-Derby Works, who retired from the profession from conscientious scruples to "making the likeness of anything". He was probably the most capable painter at the Derby Works, and doubtless had most to do with the development of the style which became associated with Derby. He signed his more important works "W. Pegg". He subsequently kept a store, where he sold, among other things, red herrings.

PENNINGTON. A figure painter at Worcester, early nineteenth century.

PENNINGTON, JOHN, SETH & JAMES. See Liverpool.

PENZANCE. An unimportant factory was working here during the middle of the nineteenth century called the Mounts Bay Pottery, established by one Collier, and carried on (about 1856) by Charles Sloman.

PERRY, SAMUEL, Hanley, 1786.

PETHER, HENRY. This potter was associated with Mr. Alfred Singer in the Vauxhall Pottery, and, in 1839, took out a patent for cutting clay into tesserae by means of intersecting wires stretched in a frame, also for the cementing together of small pieces of porcelain or earthenware to form slabs for decorative purposes. A licence for the use of these patents

was acquired by Herbert Minton, and doubtless the latter process formed the starting-point for the process of cemented hexagonal tesserae decoration employed by Mr. C. M. Campbell at the South Kensington Museum (now Victoria and Albert) and other places.

PHILLIPS, EDWARD. A native of Shelton, where he decorated china. Pieces are extant bearing the name "Edward Phillips, Shelton, Staffordshire". He became one of the managing directors of the Worcester Works, 1862-1875. He left in the latter year and in 1877 was managing the Derby Works with W. R. Ingram as Art Director.

PHILLIPS, J. See Sunderland.

PHILLIPS, JOHN, & CO., Aller Pottery, Newton Abbot. Established 1865 for the production of common brown ware. Architectural pottery has since been made. Mark, a horse's head, couped, with the Greek words "ΦΙΛΕΩ ΙΠΠΟΝ," a playful allusion to the name "Phillips".

PHILLIPS, W. & J. This firm appears as potting at Lane End in 1802. In or about 1760 one Phillips was making white stoneware, salt glaze, and afterwards cream colour at Green Dock, the latter wares, blue printed, bear the impressed mark "Phillips, Longport". A fine stoneware mug appears in the British Museum (F. 40), ornamented in relief with hunting scenes, etc., and a panel after Hogarth's "Midnight Modern Conversation," impressed in front "Phillips, 1775". Edward and George Phillips were working at Longport in 1822-1829.

PICHLER. A gem engraver who, instructed by the antiquary James Byres of Tonley, made a mould of the Barberini vase whilst it was in the possession of the Barberini family; the mould passed into the hands of James Tassie, who produced a number of casts in plaster which are now rare.

PIERCE, W., & CO. W. Pierce was associated with John Thursfield in a manufactory established at Benthal, Shropshire, in 1772. See Benthal.

PILKINGTON'S TILE AND POTTERY CO., LTD. This

pottery at Clifton Junction, Lancashire, is carried on under the direction of the brothers William and Joseph Burton, the former being the well-known writer on ceramics. It was founded in 1893, and is probably the largest manufactory of artistic decorative tiles in this country. The firm have produced designs by such well-known craftsmen as Walter Crane, L. F. Day, C. F. A. Voysey, Mucha and others.

The new "Lancastrian Pottery" is one of the many evidences

WALTER CRANE, R.I., DESIGNER.

LEWIS F. DAY, DESIGNER.

A. BARLOW.

A. BURTON

J. CHAMBERS.

C. E. CUNDALL

D. DACRE.

T. EVANS.

G. M. FORSYTH.

A. HALL.

J. JONES.

R. JOYCE.

E. KENT.

W. S. MYCOCK.

G. M. RODGERS.

of a desire amongst modern potters to emulate the colour effects of the Orientals, to produce something which will stand as a precious piece of scintillating colour, the result not so much of accident as of accurate control of the firing and a knowledge of the properties of the different compounds employed. The brothers Burton, after some years of experiment, have been singularly successful and have produced wares which rank among the best which are being produced at the present time.

The mark is a well-designed capital P with two Bees, the latter representing the brothers Burton. The marks are also given of Messrs. A. Barlow, A. Burton, J. Chambers, C. E. Cundall, D. Dacre, T. Evans, G. M. Forsyth, A. Hall, J. Jones, R. Joyce, E. Kent, W. S. Mycock, and G. M. Rodgers. The mark (four scythes) is a play upon the name Forsyth. These are used for lustered wares.

PILSBURY, R. W. An extremely able flower painter, apprenticed at the Hill Pottery, Burslem, where, after an interval of study in Paris and London, he worked until its close. He afterwards worked for Brown, Westhead, Moore & Co. for a short time, when he was engaged by the Minton firm where he remained for over twenty years. He subsequently accepted the position of Art Director of Messrs. Moore Brothers, Longton. He died in 1897.

PINDER, THOMAS. Worked the Nile Street Pottery, Burslem, in the early part of the nineteenth century. It had been in the occupation of Messrs. J. & R. Riley who were succeeded by James Cormine the uncle of Thomas Pinder. Shadford Pinder, grand-nephew of Thomas, worked the business in partnership with Mr. Bourne, as Pinder, Bourne & Co. In 1877 an arrangement was entered into with the Lambeth Doultons for the purpose of producing superior goods in Staffordshire. In 1881 Mr. Pinder retired and the firm became Doulton & Co. See Doulton.

PINXTON. A porcelain factory was established at Pinxton, near Alfreton, Derbyshire, about 1795, by John Coke and William Billingsley, the flower painter of Derby. Billingsley was an able potter, and under his direction an excellent translucent paste was produced, resembling that made subsequently at Nantgarw, whither Billingsley went after a period of some four or five years, and it is pretty certain that he took his recipes with him, as the Pinxton ware deteriorated after his secession. These recipes ultimately passed into the hands of Robert Hancock of Worcester. From about 1801, the date of Billingsley's departure, the works were carried on by Coke alone, and in 1804 they were sold to the foreman of the works, a painter named Cutts, who carried on business until 1812 when the works were finally closed and Cutts went to the Staffordshire Potteries. Many of the decorations were of the sprig type, resembling the work of Derby; the fact of the majority of the Pinxton workmen being old Derby hands would account for this. Marks were seldom used, but a cursive P is found occasionally and in some instances the word "Pinxton".

PITCAIRNS, LTD., Pinnox Pottery, Tunstall, Staffs. Now out of business.

PLACE'S ware. Francis Place was a Yorkshireman, who served as an attorney's clerk in London until 1665. During some portion of his subsequent career he turned his attention to experimenting in pottery, which experiments were made at the Manor House at York. Only one specimen apparently exists—a small coffee cup in the Victoria and Albert Museum, from Horace Walpole's Collection. It is accompanied by a certificate of authenticity, "Mr. Francis Place's china," probably in Walpole's handwriting. The cup is of a fine grey stoneware, partaking of the character of hard porcelain.

PLANCHÉ, ANDREW. A French refugee, who, about 1745, was making in Lodge Lane, Derby, small china wares

which he fired at a neighbouring pipe-maker's kiln. It is said that William Duesbury subsequently employed him, but of this there is no confirmation.

PLANT, BENJAMIN, Lane End, about 1780. Made earthenware, figures, etc. There exists a figure of a lion of lustre ware bearing the mark "B. Plant Lane End". "Benjamin Plant" also occurs.

PLANT, R. H. & S. L., Tuscan Works, Forrister Street, and Stanley Works, Longton, Staffs. Commercial china of superior quality.

PLATT, JOHN, Burslem, 1770.

PLOWES, Mr. Partner with David Dunderdale, Castleford. About 1800.

PLYMOUTH. The earliest production of hard-paste porcelain took place at Plymouth, and was due to the enterprise and initiative of William Cookworthy, an apothecary of that town, who was born at Kingsbridge in South Devon in 1705. His attention had been directed to the subject of china clay in 1745 by "a person from Virginia," an American Quaker, who had shown him samples of both kaolin and petuntze. His subsequent investigations resulted in the discovery, about 1750, of both china clay and china stone at Tregonning Hill, near Breage, and afterwards in the parish at St. Stephen's, near Plymouth.

In conjunction with Lord Camelford, upon whose estate the materials had been discovered, a factory was established at Coxside, Plymouth, and a patent was taken out in 1768 for the manufacture of hard-paste porcelain. The services of a French artist, M. Soqui, were obtained, and several enamellers from the Bow Manufactory employed.

Plymouth, however, for some unexplained reason, was found unsuitable for successful production, at any rate, the works were commercially unremunerative, and, about 1771, the manufacture was removed to Bristol, and placed under the management of Richard Champion, who ultimately, in 1773, purchased the patent and continued the manufacture at Bristol. Cookworthy died in 1780.

The body of Plymouth porcelain was composed of porcelain granite (petuntze) and china clay (kaolin) in about equal parts. The glaze was china stone (petuntze) from Tregonning Hill. Wood appears to have been the fuel used, imparting to the glaze a smoky appearance.

The general character of the decorations do not differ very much from those of Bow and Chelsea, butterflies, insects, sprigs, etc., being freely introduced for the purpose of hiding defects in the ware and glaze. A number of blue decorations in the Oriental manner were produced, and many "shell" groups forming salt cellars, etc. The modelling of the figures, of which a number were produced, can scarcely be said to reach a very high degree of excellence.

The distinctive mark is the alchemist's sign for tin, a combination of the numerals 2 and 4 in blue, red, or gold. A small mug in the British Museum in under-glaze blue, with the arms of Plymouth, is inscribed "Plymouth Manufacy. March 14, 1768, C. F." and is doubtless one of the earliest productions of the manufactory.

The accompanying mark, and a variation of it, appears on some pieces.

Mr.
W. Cookworthy's
Factory Plymouth
1770

PODMORE. One of Wedgwood's employees, who entered the service of Richard Chaffers, the Liverpool potter.

PODMORE, WALKER & CO. Occupied the Swan Bank Works, Tunstall, which had been worked by Ralph Hall. In 1862 they were succeeded by Beech & Hancock who made lustred and other wares, and were in turn succeeded by Wedgwood & Co., Ltd., who are in occupation at the present time.

POINTON & CO., LTD., Cauldon Place, Hanley, Staffs.

POOLE, THOS., Cobden Works, Edensor Road, Longton. China.

POOLE & UNWIN. Made general earthenware and stoneware at Cornhill Works, Longton, in 1871.

PORTOBELLO, near Edinburgh, end of the eighteenth century. Worked by Scott Brothers, and produced ordinary dinner and dessert ware as well as figures. In the British Museum is a flower pot of white ware with yellow glaze with acanthus leaves in relief stamped "Scott, P. B." The firm also used the words "Scott Brothers," in caps, impressed. The factory is still working.

POTTER, CHARLES. A Staffordshire man who was the first person to make English earthenware in Paris. He established the "Manufacture du Prince de Galles" in 1790 and made cream colour transfer-printed wares.

POTTERS PURY (Northamptonshire). Chaffers refers to a brown earthenware jug in the possession of Mr. Wake of Cumberland, inscribed "Robin Woodward, Yardley Gobion, 1761". This place is near Potters Pury. The works have long since been discontinued.

POTTS, JOHN. Simeon Shaw mentions John Potts,

Richard Oliver and William Wainwright Potts of New Derby, engravers to calico printers, who patented in 1831 an improved method of obtaining impressions from engravings by means of a cylinder printing machine, and employing the same to pottery.

POULSON BROS., LTD., West Riding Pottery, Ferrybridge, Yorks. Earthenware. P. B.

POUNTNEY. Messrs. Pountney & Allies occupied the Bristol Pottery at Temple Backs in 1825-1826. In 1837 the firm was Pountney & Gouldney. A jug in the author's possession, with floral ornament in relief, painted with sprigs, etc., is marked "POUNTNEY & ALLIES". Now Pountney & Co., Ltd.

POWELL & BISHOP, Hanley. Successors to the Church Works, Stafford Street, and Waterloo Works, Hanley. Originally Livesley, Powell & Co. They make earthenware and china of the first quality, and work three factories, the Stafford Street Works, formerly Reuben Johnson & Co.; the Church Street Works, formerly William Ridgway, and the Waterloo Works. The firm is now Bishop & Stonier, which see.

POWLES, RICHARD. A painter of Lowestoft.

POYNTER, SIR E. J. This distinguished artist designed among other works for pottery the tile decoration of the grill-room of the South Kensington Museum. On the whole, perhaps, the most satisfactory example of tile decoration to be seen in this country. The large panels represent the months, the smaller circular panels, various classical subjects. The tiles were made and fired by Messrs. Minton, and the painting was executed by some of the lady students of the National Art Training School, the chief painter being Miss Black, who was afterwards employed at Minton's Art Pottery Studio.

PRATT, JOHN, & Co., Lane Delph Pottery. Ordinary earthenware. Ceased business about 1875.

PRATT, F. R., & CO., LTD., Fenton, Staffs. There have been six generations of Pratts, potters, working at Fenton. The Pratt family possess, however, no records beyond

the grandfather of the present Messrs. Pratt, a Felix Pratt, who was born in 1780 and died in 1860. A Felix Pratt, presumably the first, married one of the three daughters of Thomas Heath, who was potting at Lane Delph (now Middle Fenton) in 1710. The two other daughters became the wives of the potters Palmer and Neale. The present factory was built on the site of that occupied by Thomas Heath. During the last quarter of the eighteenth and the earlier years of the

Pint flask, marked "D. R.," and Nelson and Berry jug.—Victoria and Albert Museum.

nineteenth centuries the Pratts were producing some of the most interesting wares of the period. These included toby and other jugs, figures, teapots, fruit-dishes and ornamental wares of various sorts, modelled in low relief and coloured under glaze by hand. From a rare marked example in the possession of Mr. A. E. Clarke of Wisbech, a jug bearing a representation of a sailor taking leave of his sweetheart in a

field, his ship in the distance, we are enabled to identify a number of specimens which have hitherto been credited to Sunderland and other places. Pratt's pieces were, as a matter of fact, imitated at Sunderland, and also at Herculaneum, and at the present time a number of spurious pieces are put upon the market.

In the Victoria and Albert Museum is a pint flask with a beautifully modelled figure of Nelson in relief, coloured, on an ornamental ground of blue transfer, marked "D. R." at the bottom in blue, doubtless the initials of the recipient of the piece, most certainly by Pratt although not bearing his mark.

D R.

The Pratt firm have continued the under-glaze tradition to the present day, and the transfer-printed subjects (under-glaze) after the early nineteenth-century painters—Wilkie, Mulready, Landseer—initiated by the father of the present Messrs. Pratt (born 1813, died 1894), for which he received a medal at the 1851 Exhibition, still continue to be made.

PRICE BROTHERS (BURSLEM), LTD., Top Bridge Works, Longport, Staffs. Jet and Rockingham.

PRICE BROS ENGLAND M&M

PRINCE, JOHN. In partnership with John Adams at Lane Delph about 1750. The firm manufactured red porcelain (?) and white stoneware.

PRITCHELL, SAMUEL. One of the original proprietors of the Worcester Works, 1751-1772.

PROCTOR, GEORGE, & CO., Gladstone Pottery, Longton, Staffs. China.

G. P. & CO.

PROEFFEL, B. A German employed at the Bristol Works, 1768-1777.

PROSSER, RICHARD. Took out a patent in 1840 for solidifying powdered clay by subjecting it to pressure in metal dies. See Minton.

PUGH, WILLIAM. Late proprietor of the Coalport Works. See Coalport.

RACETTI. An Italian modeller employed by Wedgwood.

RADFORD, SAMUEL, High Street, Fenton, Staffs. China.

RADFORD, THOMAS. An engraver who was living at Shelton in 1802; worked for William Greatbach. In the British Museum (M. 2) is a teapot, transfer-printed in black, with subjects of a lady seated in a chair and a tea party, inscribed, "Radford Sculpsit DERBY Pot Works".

RAMSAY, DAVID. Presented a petition to the sovereign in 1636 for the importation of German stonewares into England, affirming that he had solved the mystery of producing stoneware as in Germany.

RANDALL, JOHN. An able painter of flowers and birds at Coalport.

RANDALL, MARTIN. See Madeley.

RATHBONE, T., & CO., Newfield Pottery, Tunstall, Staffs. Earthenware.

REDCLIFF BACKS. See Bristol. Delft.

REDFERN & DRAKEFORD, Balmoral Works, Longton, Staffs. China.

REDRICH, ROBERT. According to Solon, Robert Redrich and Thomas Jones took out a patent in 1724 for "staining, veining, spotting, clouding, damaskeening or otherwise imitating

the various kinds of marble, porphyry, and other rich stones, tortoise-shell, etc., on wood, stone or earthenware ".

REID, W., & Co., Liverpool, 1756. Made cream ware and also attempted the manufacture of porcelain.

RETICULATED WARE. This consists of an inner and outer case, the latter being perforated, the two cases touching only at the neck and foot. It was practised by the Orientals, the inner case being often elaborately painted. Whieldon's greatest success was his perforated or reticulated teapots, which have become extremely rare.

HENRY RICHARDS TILE CO., THE, Pinnox Works, Tunstall, Staffs.

RIDGWAY, JOB, JOHN & WILLIAM. See Cauldon Place.

RIDGWAY, WILLIAM, son of Job Ridgway. Dissolved partnership with his brother John at the Cauldon Place Works in 1830. In 1831 he rented the Church Works at Hanley from Joseph Mayer, and worked this together with five other manufactories. He did a large American trade, and even commenced the erection of a manufactory in Kentucky, this project, however, being abandoned. His son, Edward John, was admitted into partnership; died 1864.

RIDGWAY, EDWARD JOHN, son of above. Entered into partnership with Leonard James Abington in 1864. Traded under the style of Ridgway & Abington until 1866, when he built the Bedford Works at Shelton. Retired in 1872, and was succeeded by his two sons John and E. A. Ridgway in partnership with Mr. Sparks, the London agent of the firm, the

style of the firm being Ridgway, Sparks & Ridgway. Mr. Sparks died in 1878 and the firm became Ridgways, its present style.

R. S. R. W. R.

RING, JOSEPH. See Bristol.

RIVETT, THOMAS. Associated with William Butts and John Heath in 1758 in the Cockpit Hill Works, Derby.

ROBINSON, JOHN. A painter at Seth Pennington's Works at Liverpool, who afterwards went to Burslem. A punch bowl painted by him appears in the Hanley Museum.

ROBINSON & COOPER. Established the Wellington Works, Stafford Street, Longton, in 1862 for the manufacture of china. The firm was afterwards Robinson & Son, and Robinson, Repton & Robinson.

ROBINSON, KIRKHAM & CO. Occupiers of the Overhouse Works, Burslem, about 1869.

ROBINSON & LEADBEATER, LTD., Wolfe Street, Stoke-on-Trent. Parian of an excellent quality and design, groups, busts, figures and ornamental pieces are made.

On Parian statuary—

ROBINSON & RHODES. Enamellers of Leeds, who advertised in 1760 that they enamelled white stoneware (salt glaze) which they "sell as cheap as in Staffordshire".

ROCKINGHAM. A manufactory of earthenware and tiles

was established in 1757 on the estate of Charles Marquis of Rockingham, at Swinton, Wath-upon-Dearne, and was in the occupation of Mr. Edward Butler. In 1765 the works passed into the possession of William Malpass, who produced similar wares. In 1778 the firm was Thomas Bingley & Co., who much extended the manufacture and introduced wares of superior quality, including the well-known brown and chocolate-coloured teapots, etc., which became known as "Rockingham ware," the Cadogans, filled from an opening at the base, being extremely popular. The glaze was made from oxide of manganese. For a short period, 1790-1800, the firm was Greens, Bingley & Co., the Greens of the Leeds firm.

About 1806 Messrs. John & William Brameld came into possession, and were succeeded by Thomas, George Frederick, and John Wager Brameld. About 1820 porcelain was added to the manufacture, a number of important things being produced, among which was a service for King William IV., when they assumed the title of "Manufacturers to the King".

About 1826 the firm became somewhat embarrassed, and they received substantial assistance from Earl Fitzwilliam, their landlord, until 1842, when the works closed. The earlier productions were unmarked. A few figures and busts were made during the Greens, Bingley period, amongst them being "the Snufftakers," occasionally marked "Rockingham". Later, Cadogan teapots are found marked "BRAMELD," and "Rockingham Works Brameld" also appears on earthenware. The china was usually marked with the Rockingham crest, a griffin, and inscribed "Rockingham Works, Brameld," and occasionally "Manufacturers to the King".

RODNEY, LORD. The glorification of Rodney, and the celebration of his victories, were favourite subjects of the Staffordshire potters. Many examples exist, statuettes, busts and medallions, mugs, jugs, cups, teapots, either formed of Rodney's head, or bearing his portrait, together with suitable inscriptions. In the Willett Collection at Brighton are a number of examples, including two punch bowls, made by various potters and produced about 1780. In the British Museum (H. 58) is a painted mug with relief portrait inscribed "SUCCESS TO G. B. RODNEY".

ROGERS, JOHN & JAMES. Large manufacturers at Dale Hall, Longport, in 1786, of china-glazed blue-painted wares and cream coloured. In 1802 they occupied two factories, and were amongst the largest exporters to America of blue-printed American and other views. John Rogers lived at the "Watlands," since occupied by one of the Adams family, and more recently the home of Sir Oliver Lodge. He was succeeded by his son Spencer, who retired in 1829. Their wares were marked "ROGERS," and on the ironstone china, of which they made a quantity, the mark for iron was added to the name. Examples occur in various collections. Mr. Freeth has a piece with a view of Tivoli, blue printed, marked "Rogers". In 1842 the works passed into the hands of James Edwards and are at present in the occupation of Messrs. Knapper & Blackhurst. See Edwards, James.

ROSE. A flower painter of Lowestoft.

ROSE DU BARRY. A rose colour produced at Sèvres named after Madame du Barry.

ROSE, JOHN. See Jackfield.

ROTHWELL. An engraver who worked for Haynes of Swansea about the end of the eighteenth century.

ROTHWELL POTTERY, near Leeds. Common wares.

ROUS & CULLEN. Presented a petition to the sovereign in 1626 for the importation of German stonewares into England

ROYAL ESSEX POTTERY, Hedingham Ware Art Pottery Works, Castle Hedingham, Essex. Earthenware.

RYE, Sussex. There were several potteries working in the neighbourhood of Rye during the latter part of the eighteenth century; that at Cadborough is referred to under Cadborough. There were also potteries at Iden and Chailey making a kind of red ware, inlaid with white slip from about 1790 onwards.

SADLER & GREEN. See Delft, Liverpool.

SALOPIAN WARE. See Caughley.

SALT, RALPH, Hanley, was working a small manufactory on Miles' Bank between 1812 and 1834 when he removed to Marsh Street. He made a large number of village groups and chimney ornaments with spreading tree backgrounds. His mark was the word "SALT" in caps impressed, often on a raised scroll. He died in 1846 and was succeeded by his son Charles Salt, who continued the manufacture of similar wares, with the addition of Parian. Charles Salt died in 1869 when the manufactory was closed. The best of the figures of this school are quite interesting and good. They were afterwards made by the younger Salt and other potters in large quantities and the character degenerated.

SALT & NIXON, Jubilee Works, High Street, Longton, Staffs. China.

SALT GLAZE. The method of salt glazing is an old one, having been practised in Germany early in the sixteenth century. In 1671 John Dwight was making his salt-glazed figures at Fulham, and between 1680 and 1690 the process found its way into Saffordshire. The production of salt-glazed ware lasted from this time until about 1760 when it gradually

gave place to the less interesting, but more generally useful, lead-glazed cream ware of Wedgwood, and ceased about 1780.

Salt glazing is practised at the present time at Lambeth, Nottingham and elsewhere, but the term salt glaze has come to be generally applied to the fine Staffordshire wares of the eighteenth century.

The paste is "so hard and firm as to almost resemble a porcelain: the glazing was effected by means of shovelling common salt into the oven when the heat was at its highest, the ware being placed in saggers having perforations round the sides to allow the fumes of the salt to reach the ware. The glaze is composed of minute granulations somewhat resembling the skin of an orange but much finer. This granulation was afterwards modified by the addition of red lead."

The various developments of salt glaze are as follows. In the first instance the body was of a grey or drab colour, upon which stamped ornaments were applied; afterwards the body was whitened and hardened by the discovery of the use of flint, generally attributed to Astbury; the interior of the grey pieces were often washed with white clay and flint.

Colour began to be introduced about 1740, first in the form of incised ornamentations into which blue zaffre was dusted (scratched blue), and afterwards in the form of enamel painted decorations, the introduction of which is attributed to the two Dutchmen of Hot Lane.

The rare pieces which are covered with a deep rich cobalt blue glaze, often ornamented with white enamel or oil gilding, were made about 1750 by William Littler of Longton.

Transfer printing was also employed during the later and decadent period.

Potters' marks on salt glaze are exceedingly rare, although inscription is fairly common on the later developments of scratched blue and enamelled decorations.

The fine mug in the Hanley Museum with small impressed ornaments in the Elers' style and device of bird holding cup is

dated 1701. If this is really Staffordshire and not German, as some believe, it is the earliest dated piece of Staffordshire salt glaze at present known.

A small bottle or flask in the British Museum is inscribed "I. M. 1724".

On a mug in the Schreiber Collection, "William Ball 1747".

On a two-handled cup in the British Museum, "Mary Cowdal of Frolsworth: 1750".

The equestrian statue of the Duke of Cumberland in the British Museum (G. 43) is marked at bottom with the initials W. D. in blue, as given. It has been suggested that these may be the initials of Thomas Warland and Margaret Dwight of the Fulham Works.

The teapot spout moulds, or rather matrices, in the Jahn Collection, Hanley Museum, bearing Ralph Wood's mark, are of the highest interest as helping in the identification of specimens. Two are dated 1748, a third 1751.

The small cream jug mould in the Victoria and Albert Museum is dated 1749. The potter's tool in the Jahn Collection is inscribed "Edward Till 1767".

The block for a spitoon in the British Museum (G. 56) bears the signature "Aaron Wood".

A bottle in the Schreiber Collection has the initials and date "D. H. 1759".

The fine covered tureen in the Victoria and Albert Museum is scratched on the cover and body "I. B. 1763".

The mark "Moses Glass" on a piece in the Freeth Collection is of the greatest interest as indicating a hitherto unknown potter. The Glass family were important potters in Hanley during the seventeenth and eighteenth centuries. Glass Street, Hanley, is named after them.

The mark "BEECH" occurs on a salt-glazed dish in the Mayer Museum, Liverpool.

The salt-glazed teapot marked "Wedgwood" formerly in

the possession of Mr. G. W. Rhead, belongs to the earliest period of his work at Etruria, and was probably modelled by

Salt-glaze moulds for teapot spouts, with Ralph Wood's mark.—Collection of Mr. Louis H. Jahn, Hanley Museum.

Hackwood. It has always been known that Wedgwood made salt glaze. He himself refers to the fact in a letter to

Bentley: "White stoneware (viz., salt glaze) was the principal

Salt-glazed teapot marked "WEDGWOOD"

article of our manufacture". Another teapot exists marked "153 Wedgwood, Etruria".

IM
1724

William : Ball :
1747

Mary Cowdal
of Frolsworth : 1750

WD

RW
1749

DM
1758

IB 1763

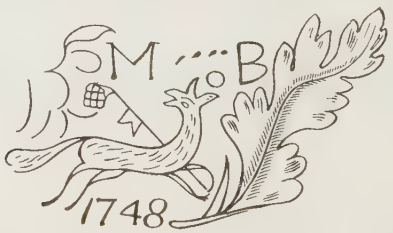
moses
Glass

BEECH

nk

All the foregoing examples are in white ware.

Of scratched blue the earliest dated example is the fine two-



handled posset pot in the Hanley Museum, marked "M. B. 1748".

Mr. Hodgkin gives a remarkable piece from his own collection inscribed—

1749
John Cope
Hear gous.

A mug in the Schreiber Collection is inscribed—

On a cylindrical mug in the British Museum with the model of a mouse inside appears—

On a two-handled bowl in the Willett Collection—

H. M.
1757.

A mug in the Schreiber Collection decorated with a rose and thistle is inscribed:—

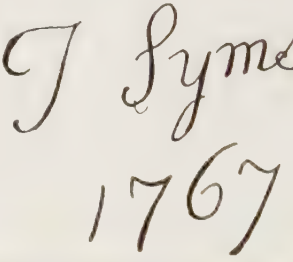
This is Thomas Coxies Cup:
Come my Freind and Drink it Up
Good News is come in the Bells do Ring
Theres a Health to Prusia's King

Jebruary 16 1758

A more characteristic inscription of the convivial sort appears on a small posset pot in the Frank Freeth Collection:—

Some times Strong Beer
Some times Small Beer
Some times Water Clear
Let me Not be Starved here
1761

In the same collection is a large jug with floral ornament inscribed in front—



In the Schreiber Collection is a jug with the name "Thos. Allsop" painted in large letters in front. In the same collection is a mug coarsely enamelled in colour with a Chinese figure subject, marked with the letter B painted under the handle, probably a late specimen.

Coloured teapots with medallion portraits of Frederick the Great of Prussia appear in the Schreiber, British Museum and other collections, a panel on the reverse side bearing a shield of arms with the motto "Semper Sublimis," the two panels superimposed on a ground of ermine spots. Frederick the Great also appears on horseback on a large dish at South Kensington with basket or trellis-border, a late example, the modelling indifferent, and the painting—which has been added in Holland—coarse.

A salt-glazed enamelled teapot, Whieldon shape, with three

claw feet, marked with a large painted W in blue, is in the possession of Mr. George F. Glenny of Wisbech.

SANDFORD, MOSES, Hanley, beginning of the eighteenth century. Made milk-pans and small ware.

SANDLANDS & COLLEY, LTD., Lichfield Pottery, Hanley. China.

The business is now carried on by Sandlands, Ltd.

SANDYFORD. There was an earthenware manufactory at Sandyford, Tunstall, which was worked at the beginning of the nineteenth century by James Beech and Abraham Lownds. The firm was Lownds & Beech in 1821; in 1834 it was Beech alone. The works were closed about 1845.

SANS, THOMAS & WILLIAM. See Slip Wares.

SARUM. See Payne.

SAUNDERS, JOHN. A Delft plate in the British Museum (E. 135) is inscribed on back "JOHN SAUNDERS, 1754". It is impossible to determine whether John Saunders was the painter of the dish or the recipient. "One John Saunders kept an inn in 1775—The Fox, No. 78 Redcliffe Street, London."

SCRIVENER, R. G., & CO., Norfolk Street Works, Cauldon Place. Established 1870. Productions, china and earthenware. Mark, R. G. S. & Co. impressed.

SEALEY. See Coade & Sealey, and Lambeth.

SEFTON & BROWN, Ferrybridge Pottery, Yorks. Earthenware. S. B. F. B.

SEWELL & DONKIN. See Newcastle-upon-Tyne.

SHARP. See Stevenson, Sharp & Co., Derby.

SHARPE, THOMAS. See Swadlincote.

SHAW, AARON, Burslem, 1710. Stone and Delft wares.

SHAW, ALDERMAN. See Liverpool.

SHAW, ANTHONY, & CO., Longport, now Wilkinsons. Earthenware. The Mersey Pottery was established in 1850 by

Mr. Anthony Shaw who produced decorated ironstone china, chiefly for export. Mr. Shaw received a medal at the Paris Exhibition of 1855. The works were rebuilt in 1866 and greatly enlarged. The mark is given under Wilkinson, A. J., who succeeded.

SHAW, MOSES, Burslem (middle of town), 1710. Stoneware and freckled.

SHAW, RALPH, Burslem, early part of the eighteenth century. Made amongst other wares a red sgraffito ware. An interesting jug in the British Museum (G. 39), decorated with ornament of birds, flowers, etc., is probably by him. He claimed, in 1775, a patent for this ware, which was opposed by Astbury, with the result that Shaw was defeated. In 1733 he took out a patent for certain improvements in salt-glazed wares.

SHAW, ROBART. See Slip Wares.

SHAW, SAMUEL. See Liverpool.

SHAW, STEPHEN. A slip potter of Tickenhall.

SHAW, A. & S., Lane End, early part of the nineteenth century.

SHELLEY, MICHAEL & THOMAS, Lane End, 1786.

SHERRATT, OBEDIAH. A maker of figures of Burslem about 1822. He produced amongst other groups one of bull-baiting, a man holding staff, with both arms upraised, a dog attacking, another tossed on the top of the bull. Several groups of bull-baiting are extant, the earliest being attributed to Ralph Wood. The sport of buli-baiting was still indulged in at the time Sherratt potted. It occurred during "Stoke wakes" and other holiday times. Messrs. Falkner & Sidebothan have a group inscribed "Bull-Baiting" and "Now Captin Lad". In the Willett Collection, Brighton, are several. Sherratt's manufactory was closed about 1855.

SHERWIN & COTTON, Eastwood Tile Works, Hanley, Staffs. Tiles.

SHIRLEY, LINDOP & CO. Were potting at Longport in 1802. John Lindop also appears as potting at Green Lane about the same time.

SHORE, COGGINS, & HOLT, Edensor Works, New Street, Longton, Staffs. China and Earthenware.

J. S. & CO.

SHORE, JOSEPH. See Isleworth.

SHORTHOSE. John Shorthose & CO. were making cream wares in Tontine Street, Hanley, in the second half of the eighteenth century. Their names appear in the directory of 1821. In the 1862 list the names Heath & Shorthose appear. The marks are several—"SHORTHOSE," in caps, appearing on cream-coloured ware. "Shorthose" in lower-case letters with capital S also appears on several specimens. In the British Museum (R. 14) is a tray of cream ware, sides painted with floral pattern in colour on a red ground, marked "Shorthose & Heath," caps. In the same collection (R. 15) is a dish of cream ware, oval, with pierced patterns on rim, marked "Shorthose & Co.," caps. Mr. Frank Freeth also has a pair of similar dishes marked "Shorthose," lower-case letters, with capital S. In the British Museum (XIV. 18) is a china teacup and saucer, printed in under-glaze blue with landscape and birds, marked "Shorthose & Co." with two crescents. The manufactory closed about 1823.

Shorthose & Co.

C C

SILK. A landscape painter at Caughley, 1780.

SIMEON, VICTOR. An able French modeller who came to England about 1858. Worked for Mintons where he modelled the well-known "Captive" vase and other works.

SIMPKIN, H. Made a good class of china at Lane End in the early part of the nineteenth century.

SIMPSON, AARON. One of the Burslem potters who went to the Chelsea China Works in 1747, and afterwards traded for a time in Chelsea on their own account.

SIMPSON, JOHN. An able figure painter at Mintons between 1837 and 1847. He afterwards assumed the direction of the enamel painting class at Marlborough House.

SIMPSON, JOHN. Three John Simpsons appear as potting in Burslem in 1710. One as "not working" in the west end of the town, another as making "mottled" and "black" in Rotten Row, a third as making red dishes and pans in the same place. A few slip decorated dishes appear in different collections signed "John Simpson". Simpson & Wright appear as potting in Shelton in 1802.

SIMPSON, JOSEPH & JOSIAH, Burslem. About 1750.

SIMPSON, RALPH. See Slip Wares.

SIMPSON, RICHARD. Made red dishes, etc., at the Pump, West End, Burslem, in 1710.

SIMPSON, THOMAS. An able flower painter at the Minton firm, latter half of nineteenth century.

SIMPSON, WILLIAM. Made cloudy and mottled at Hanley in the beginning of the eighteenth century.

SIMPSON, WILLIAM. Made brown stoneware at the "Stocks" in Burslem in 1710.

SIMPSON, WILLIAM. Presented in 1581 a petition for "full power and onlie license to provyde, transport, and bring into this realm drinking stone pottes" and "as much as in him lieth, drawe the making of such like pottes into some decayed town within this realm, whereby many hundred poore men may be sett at work".

SIMPSON (MORT & SIMPSON). See Liverpool (Herculaneum).

SIMPSON, W. B., & SONS, St. Martin's Lane, London, W.C. This firm have executed some of the most admirable tile decorations produced during the last quarter of the nineteenth century. Examples of their work are to be seen at the Criterion Restaurant, the bar at the Mansion House Railway Station, London, and many other places.

SIMS. A Derby painter who set up an establishment in

London and decorated Nantgarw porcelain for Mortlock. He employed several assistants, amongst whom was Zachariah Boreman, who had worked at Derby from 1783-1794. Haslem, *Old Derby China Factory*, says: "After his (Boreman's) return to London in 1794, he worked for some of the enamellers there, but chiefly for Sims, who was one of the old Derby hands". Sims was working in 1820.

SINGER, ALFRED. See Lambeth.

SKINNER, GEORGE & WILLIAM. See Stockton-on-Tees.

SLATER, WILLIAM. A painter at the Derby Works, apprenticed at Pinxton, removed to Derby in 1813 before the expired term of his apprenticeship, and worked there until the close of the factory in 1848. He went to Staffordshire and worked for Davenport until his death in 1867.

SLIP WARES. Slip is simply clay, reduced by the addition of water to the consistency of thick cream. It is usually poured, dropped or trailed on the ware from a spouted vessel resembling a small teapot. It may also be applied by means of the brush.

It is one of the earliest and most primitive forms of pottery decoration; it was employed by the Romans, it was practised intermittently throughout the mediæval period, it is in use at the present time.

The period which has come to be known as the English Slip Period commenced in the early years of the seventeenth century and lasted until the end of the eighteenth when it fell into disuse.

It was made in most parts of England where pottery was produced, but more particularly at Wrotham in Kent, at different places within the metropolitan area, in Staffordshire, and at Tickenhall and Cockpit Hill in Derbyshire.

Wrotham.

Wrotham slip decoration was a development of the method of stamping patterns on the body of the ware, first on the clay

itself, and afterwards in a different coloured clay applied to the ware. This fact alone, apart from recorded dates, would point to Wrotham as being the first to initiate, or rather to revive, this form of decoration. As above mentioned, the decorations were first stamped upon the body of the piece itself, and afterwards applied. An example of this is the fine tyg in the Mayer Museum at Liverpool inscribed "I. L. 1612".

A tyg similar in shape, and same initials, appears in the Victoria and Albert Museum, but with the date 1621.

This latter date appears on a tyg in the possession of Dr. Glaisher, but with the initials "T. I."

"I. L." also appears on a tyg in the British Museum (D. 2) but with the date 1627, and on another example (D. 3) in conjunction with the initials "M. N.," the date 1638.

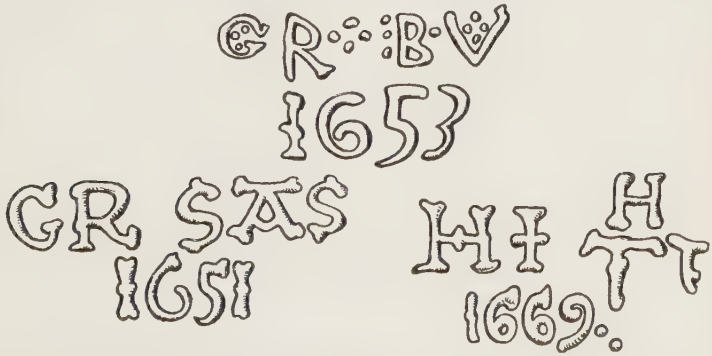
A curious barnacled three-handled (treble looped) tyg in the possession of Dr. Glaisher is inscribed "T. B.," with the date 1632. A similar one in the same collection is dated 1633.

The initials "T. I." also appear on a posset pot ascribed to Wrotham in the Jull Collection, dated 1654, mentioned by Mr.

Hodgkin, and supposed to be the initials of a potter named Thomas Jull, the piece being still in the possession of a member of the family. There is, however, no reliable evidence of any potter of the name of Jull; this on the authority of Dr. Glaisher, who took considerable pains to investigate the matter.

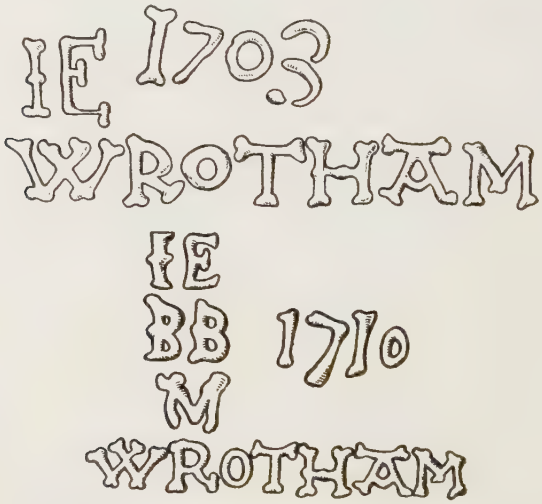
The initials "I. W." appear in a number of instances—on a candlestick and puzzle tyg in the British Museum dated 1656 and 1659 respectively, and on a tyg in the Victoria and Albert Museum.

Other initials are "G. R. 1642, 1650, 1651, 1659," the same initials occurring on a puzzle tyg in the British Museum in conjunction with the initials "B. V.," dated 1653. Also on a candlestick in the British Museum in conjunction with the initials "S. A. S.," dated 1651; "H. I. 1656, 1657," and in the British Museum a quaint puzzle jug with a man seated on the spout, the initials "H. I." in conjunction with other initials, and dated 1669.



A candlestick in the Victoria and Albert Museum with the initials "E. M. E." is dated 1649.

"I. E." occurs on a number of pieces, and, which is most important, together with the word "Wrotham"; pieces bearing these initials are dated 1681 in conjunction with the initials "E. C. 1697" in several instances, 1699, 1703, 1704, 1707, 1710; it occurs on a very interesting sgraffito dish in the British Museum in conjunction with "W. E." and dated 1699; with $\frac{\text{B. B.}}{\text{M}}$ dated 1710, inscribed "Wrotham"; on a two-handled posset pot in the British Museum, with $\frac{\text{B.}}{\text{M.}}$ E. dated 1717; on a two-handled posset pot in the same museum, and also with the initials $\frac{\text{W.}}{\text{W.}}$ $\frac{}{\text{S.}}$ and "T. B.," dated 1707 and 1710 respectively.



Dr. Glaisher, who has given much consideration to Wrotham ware, has a jug with "T. M.; G. R.; I. E., WROTHAM," with date 1656. He affirms that "I. E." occurs on every piece after 1675, which he is certain is Wrotham, and remarks that it is very curious to get it in 1656 and *with* the initials "G. R."

He has also a posset pot with "I. E. WROTHAM," dated 1713, which is later than any piece recorded with the name at length, and another piece "I. E. 1721," which, although not marked Wrotham, is certainly by the same workman as the 1713 piece. It would, however, be impossible for all the initials "I. E." to refer to one and the same potter, as the dates cover a period of sixty-five years.

Other initials are $\frac{S.}{M.\ M.}$ 1645, collection of Mr. J. E. Hodgkin. $\frac{R.}{E.\ E.}$ 1671, British Museum. "A. M. 1718," Taunton Museum. "N. H. 1656," collection of Miss Jull, referred to by Mr. Hodgkin.

The groups of initials:—

BE MH GR 1651

Griffiths' Collection, referred to by Mr. Hodgkin.

Four-handled tyg, British Museum.

HL IA 1668

Large brown dish, incised pattern, referred to by Jewitt.

The fine four-handled pot in the British Museum with the cover in the shape of a crown, and the inscription "Mary Parvish her pot 1714," must be ascribed to Wrotham.

A large four double-looped handled tyg in the British Museum is inscribed "WROTH . . . N . . . M . . ." the remains of a more complete inscription.

On a candlestick in the Maidstone Museum

H. I. M N T

A large two-handled jug or cistern in the British Museum is inscribed :—

W

W. E.

THE RIT: GENNRAL ↄORNAL

OFER: THE: DRoVNK: KEN

REGMENT: NH: 1678

It should be noticed that there is a marked difference in the character of the lettering between the Wrotham and Staffordshire pieces. The elbows and terminals of the letters are always *double* in the Wrotham pieces. Two exceptions to this rule, however, appear—on a dish in Mr. F. Bodenham's Collection, given in Hodgkin, with the inscription :—

W. S.

THIS: FOR W: F: 1691

the same initials—"W. S."—occurring on the 1688 tygs in the British and Victoria and Albert Museums, which are undoubtedly Staffordshire. The other exception is that of "William TALOR," who signs his name both in the Staffordshire and Wrotham style. The latter on a large dish in the Liverpool Museum.

"A. S." appears on an interesting jug in the Toft style in the Solon Collection, with the date 1704.

A covered tyg also in the Solon Collection (certainly Wrotham) is inscribed "John Hugh," and dated 1690.

Metropolitan.

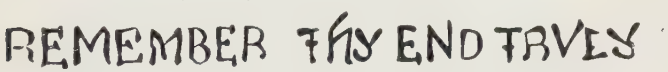
The Metropolitan examples fall somewhat short in technical excellence, but it must be admitted that what they lack in artistic invention, they certainly supply in moral precept. Examples, with names signed in full, are, as in the case of Wrotham, practically non-existent; in fact, the signing of the full name may be said to be a characteristic of the Stafford-

shire potter. Even initialled pieces are exceedingly rare. One of the earliest dated pieces (also rare) is a cup in the British Museum (D. 21) inscribed :—

Mr. Hobson in his catalogue refers to a jug formerly in the Brent Collection of a much earlier date, 1638, inscribed, "Be not hy minded but feare God".

Of undated and unsigned pieces the following appear in the British Museum :—

An oviform pot (D. 31) inscribed :—



An oviform jug (D. 28) :—

FEAR THE LORD THE GOD.

Another (D. 24) :—

OBEAY THE KING.

Another (D. 25) :—

HELP LORD FOR GOOD AND GODLY MEN DO.

Another (D. 26) :—

"When this you see remember me.
OBEAY GOD'S WOURD."

All these examples were found in London.

Staffordshire.

The character of the Staffordshire pieces is more or less dominated by the peculiar technique of Thomas Toft, who appears to be one of the earliest practitioners. It must, however, be remembered that our only information as to the date, and even the locality, of this potter, rests solely upon the evidence of Mr. Solon's friend, who once saw in a cottage in Hanley a dish scratched on the back, "THOMAS TOFT, TINKERSCLOUGH. I made it, 166 "—the last numeral

illegible. This dish has never since come to light. There was certainly a slip factory at Tinkersclough; we are very familiar with the district, and well remember the old sagger wall, long since disappeared, which stretched as far as Etruria, and from which we, as children, forty years ago, before Mr. Solon knew it, picked the little rings, props, etc., made of red or orange-coloured clay, and glazed with the treacle-coloured glaze, together with the fragments of slip decorated pieces.

Slip dish. Signed Thomas Toft.—Collection of Dr. J. W. L. Glaisher, F.R.S.

Thomas Toft's name occurs on a number of pieces, in each instance undated.

The remarkable dish representing Adam and Eve, forming

the frontispiece to this work, differs materially from the usual Toft pieces, being of a greenish hue: although grotesque to the last degree, considered as a design it fulfils all the conditions of good ornamentation.

THOMAS:TOFT

RALPH TOFT 1676

The other names appear in the following order of date:—

Ralph Toft, 1676, whom we may assume to be the son of Thomas. He is represented by two examples in the British Museum, dated respectively 1676 and 1677.

THOMAS HEATH,
ANN MITCHELL, 1677.

There was a Thomas Heath potting in 1710, father-in-law to the three potters Palmer, Neale and Pratt.

Ralph Turnor, 168 , whose name appears on a posset cup in the British Museum (D. 84), the date incomplete.

RALPH:TVRNOR 168

Six-handled posset pot, Glaisher Collection:—

RICHARD MEER IS MY NAME 1682.

Posset pot, Glaisher Collection:—

JOHN TAYLOR, 1690.

James Johnson, 1691. The last item of the date is illegible; it may be 1 or 4, but more probably 1.

IAMES IOHNSON 1691

Robart Shaw, 1692. Posset pot in British Museum (D. 61), inscribed:—

ROBART SHAW:1692

William Chaterly. The name appears on a posset pot in the British Museum (D. 62).

WILLIAM:CHATERLY:1696

William Talor. A dish in the British Museum (D. 52), with two figures standing side by side, is inscribed with the initials "W. T." and the name "William Talor," undated.

Slip dish. William and Mary. Unsigned and undated.—Collection of Dr. J. W. L. Glaisher, F.R.S.

George Taylor. A large dish in the Solon Collection, with extremely primitive decoration in the style of Thomas Toft.

GEORGE TAYLOR.

Joseph Glass. The name appears on a number of pieces. The inscription given is from two sides of a cradle in the collection of Dr. J. W. L. Glaisher.

IOSEPH:1703

GLASS: 1703

On a posset pot in the British Museum appears the inscription "JOSEPH GLASS S.V. H.G." His name appears in Wedgwood's list of potters in Hanley in 1710, as a maker of "cloudy, and a sort of dishes painted with different coloured slips, and sold at 3s. and 3s. 6d. per dozen". In the lists of 1786 and 1802 John Glass appears, presumably a descendant of Joseph. In 1821 John Glass & Sons were potting at the same works, and up to 1834 it was still John Glass. In 1842 Samuel Keeling took over the works, which were dismantled in 1872. Glass Street, Hanley (on the site of the works), still perpetuates the name.

Two Wrights, John and William. In the British Museum is a dish (D. 55) with conventional ornament inscribed "John Wright," but without a date.

IOHN·WRIGH·1707:

WILLIAM:WRIGHT 1709

Ralph Simpson. The name appears on several dishes. Like Thomas Toft he did not apparently date his productions.

RALPH·SIMPSON

William Simpson. The fine posset pot (illustrated) bearing this name is dated 1685, a peculiarly interesting date—that of Sedgmoor, the death of Charles II., the birth of Handel and Bach.

Slip posset pot.—Staffordshire. Inscribed "William Simpson his cup, 1685". Collection of Dr. J. W. L. Glaisher, F.R.S.

Margere Nash. A fine dish appears in the British Museum (D. 57), with a double eagle, two rosettes and a fleur-de-lys, inscribed:—

MARGERE·NASH

Mary Perkins. On a large dish in the British Museum of extremely fine design.

MARY:PERKINS: 1704:

Mary Shiffilbottom (for Shufflebottom, a very common name in Staffordshire) on a tyg in the Solon Collection.

MARY : SHIFFIL BOTTOM, 1705.

It may be taken that in the three preceding instances the names are those of the recipients of the dishes, and not of the artists.

A remarkable plate in the Liverpool Museum with the figure

of a cock and a trumpet is inscribed, on the field of the plate, "H. T.," and on the rim, with Toft trellis border, the name "Tomkis".

HT TOMKIS

Thomas Toft's name occurs in conjunction with that of Elizabeth Poot on a six-handled tyg in the York Museum.

THOMAS TOFT
ELISABETH POOT

Other pieces signed with more than one name are: A large dish in the Toft style with the grotesque head of a bird, in the collection of Mr. F. Potts, illustrated by Mr. Hodgkin, inscribed—

RICHARD PERIN
DARITY PERIN

On a large cradle in the Solon Collection—

WILLIAM SMITH
MARTHA SMITH
1700

On a dish mentioned by Mr. Solon—

W. RICH 1702

A tyg in the Willett Collection at Brighton is inscribed "William Ley 1715, Elizabeth Ley her cup".

WILLIAM LEY 1715

A small plate in the Victoria and Albert Museum is inscribed "John Pratt Anno 1757, 123".

On a two-handled posset pot at South Kensington, combed pattern—

Dr. Glaisher has a piece similar to the foregoing in shape with combing in front inscribed—

CHARLES BIRD 1736

There was a John Simpson whose name appears on a posset pot in the possession of Mr. J. E. Hodgkin and figured in his book (*Examples of Early English Pottery*)—

JOHN SIMPSON 1735

A number of tygs and posset pots appear in various collections having a series of initials, together with a date. It seems reasonable to suppose that these were made for some club or association, and the initials those of the members, or persons who made use of the cup. In the South Kensington Collection is a two-handled posset pot, globular, decorated with circular stamped ornaments on a marbled ground, inscribed round the rim—

The initials "I. G." appearing in this set, occur also on a four-handled tyg in the Salisbury Museum, dated 1692, and bearing the inscription—

"Here is the Gest of the Barly Korne
Glad Ham I the cild is born".

In the Victoria and Albert Museum is a fine two-handled tyg, buff ware, decorated with panels of conventional tulips, which are coloured with a rich brown glaze, inscribed around the rim—

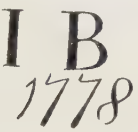
A similar tyg of the same date in the British Museum (D. 58) is inscribed—

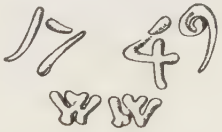
EP. RF. WS. TDA. TG. 1688.

The initials "I. B." occur in several instances—in conjunction with "R. F.," on a two-handled posset pot in Mr. G. Slater's Collection, referred to in Hodgkin—

THE BEST IS NOT TOO
GOOD FOR YOU 1697: IB. R. F.

and in conjunction with "I. I." possibly (James Johnson), on a two-handled posset pot referred to by Hodgkin. It also occurs by itself on a small puzzle jug in the British Museum. It again occurs, in conjunction with "IONN 1693," on a jug in the Hanley Museum with a figure of "Plenty" modelled in front. "W. W." occurs on several pieces—on a dish in the Hanley Museum with birds, and also on a dish in the Liverpool Museum with a representation of a cock, ascribed to Cockpit Hill, possibly on account of the cock, both dated 1749.





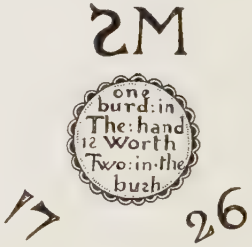
Tickenhall and Cockpit Hill.

There were extensive potteries in the neighbourhood of Tickenhall in the seventeenth and eighteenth centuries, and probably earlier. Remains covering a large area have been found.

At Cockpit Hill, also, it is probable that pottery was made from an early period. Little is known of the early history of the works, but Jewitt mentions a document, still in existence, showing that in 1758 the proprietors were W. Butts, Thomas Rivett and John Heath, and subsequently John and Christopher Heath.

Two advertisements appeared in the *Derby Mercury* during 1780 announcing sales of the stock of that "great and extensive factory" on Cockpit Hill, carried on by John and Christopher Heath of Derby, bankrupts. Five years later, 12th March, 1785, the materials of the building were sold.

Mr. Bemrose, in his work on *Bow, Chelsea and Derby Porcelain*, states that John Meir was proprietor in 1708, and that the tyg in the British Museum (D. 65), inscribed, "God bless the Queen and Prence Gorge Drink and be mery and Mary B B John Meir made this cup 1708," was purchased at the factory, and upon this evidence it has been assumed that the three dishes (British Museum, D. 38, 39, 40) inscribed "S. M." and dated in one instance 1726, are the work of Samuel Meir.



The third example (D. 40) represents a man standing under a pair of compasses, the dish inscribed—

> "Keep within Cumpas and you shall be sure
> To avoid many Troubles which others indure
> S. M."

This device and motto was imitated on pottery later (see Ansley, John).

Dr. Glaisher has a posset pot dated 1696, inscribed "Richard Mare". The character of its decoration is, however, similar to the Staffordshire productions, and the name Meir in its many variations is a well-known and common Staffordshire name.

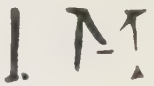
The curious plate in the British Museum (D. 41) has four

lions passant, alternated by fleurs-de-lys with the initials "R. S." A similar plate appears in various collections. Mr. Solon figures one in the *Art of the Old English Potter*, and Dr. Glaisher also has one, with a curious representation of two large feet in the centre, but with no inscription or initial.

A remarkably beautiful octagonal plate appears in the Glaisher Collection with four pomegranates in relief, alternated by fleurs-de-lys, figured in *Staffordshire Pots and Potters*, inscribed "I. S."

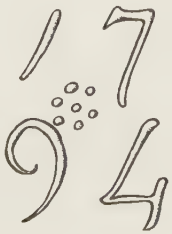
A similar dish appears in the Solon Collection with the initials "S. F."

The initials "I. M." appear on a characteristic plate in the Victoria and Albert Museum, with a lion and unicorn with crown and oak leaves, designed in a very free style. All these examples have the raised outlines which are associated with Cockpit Hill.



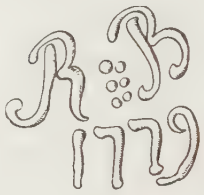
The octagonal plate belonging to Dr. Glaisher presents, however, some differences from the other examples; in this the raised outlines have no *milling* and the rim is not notched. Mr. Solon has pointed out that the notching of the Tickenhall dishes was employed with a double purpose—for ornament, and to prevent the dishes, which were fired face downwards, from sticking to the parts on which they rested.

A large dish in the British Museum attributed to Cockpit Hill is dated—



The initials "R. B." with date 1779 are from an example

from Silkstone, Yorks, and are believed to be those of Richard Bailey.



In the Liverpool Museum is a fine posset pot with two handles and cover, a frieze of birds round the rim, and bearing the initials "A. W." This piece is stated in the catalogue to have been made by a Liverpool potter named Page, who was working about 1760, and remained in the Page family until it was presented to the museum in 1878. Dr. Glaisher has a similar piece, and has also recently acquired a large dish, almost identical in design, colour and slip, inscribed "T. P. 1733," thus confirming the statement in the catalogue regarding the identity of the potter.

Sgraffito.

Precisely as the Wrotham method of stamping barnacle-like ornaments on the body of the ware was a development of an earlier decorative device, so the Italian process of sgraffito, applied to pottery, was an amplification of the scratched or incised decoration common to almost all primitive pottery. An example of the last-named process, *i.e.*, incised ornamentation of the body of the ware itself without the intervention of slip, is in a curious covered tyg in the Glaisher Collection ornamented

with a series of volutes in relief on handle and cover, similar voluted ornamentations appearing incised on the body of the

pot, with initials and date, the pot being covered with a rich reddish-brown lead glaze.

Perhaps the most primitive example of sgraffito (albeit late) which could be given of these primitive and picturesque wares, is a cradle in the Glaisher Collection. Its ornamentation is reminiscent of juvenile attempts in mural decoration at street corners. It is glazed with a deep yellow glaze and is

undated. In the same collection is a large three-handled globe-shaped jug, with incised ornamentation inscribed—

"Ritcherd Murrells
Josuph Reppingel
pot maker,"

probably intended for "pot makers," there being no room for the "s".

A puzzle jug in the British Museum (D. 112) is inscribed—

"Don't get drunk".
J LANGMEAD J. G. Mkr. Oct. 1669.

A fuddling cup, nest of three cups (British Museum, D. 116), of light buff ware, is inscribed—

SM EM No. the 22, 1736

A very interesting bowl in the Victoria and Albert Museum, incised in the interior with animals, fishes and flowers, with a chess-board border, is dated 1755.

An extremely interesting series of dishes were made, probably at Tickenhall, having incised ornaments, in lines and dots, of birds, fishes, flowers, etc., with the notched rims used in the

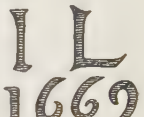
Tickenhall dishes. An example is D. 46 in the British Museum inscribed—

D A
1643

Another (British Museum, D. 47), with a sun, fleurs-de-lys, and scroll border is marked on the back—

JOSEPH KING C W 1664

Another example is dated "I. L. 1669".



Another form of sgraffito is that in which the whole body of the piece is covered with a coating of slip, the portions forming the background of the ornament cut away, and the ornament itself enriched with tool work in lines, notches, incisions, etc. An example of this is the dish already referred to, inscribed "I. E. WE. 1699 WROTHAM" (British Museum, D. 14).

In some pieces the slip is applied only to the portions ornamented, the slip being enriched in a similar way. An example is a jug in the Glaisher Collection, inscribed "Samuel Hugheson 1678," illustrated in *Staffordshire Pots and Potters.*

A similar jug is in the British Museum (D. 101), inscribed "JOHN WENTER 1686". Both these jugs may safely be ascribed to Wrotham.

Sgraffito decoration, therefore, was employed in three different ways—by itself, in a series of lines or patches, or both; in conjunction with raised or impressed decorations; also with dropped, trailed or painted work in slip. There can be no doubt that the several forms of slip decoration were employed during the period of its vogue, to a more or less extent, at all parts of the country where potting centres existed. In the Victoria and Albert Museum are a number of fragments dug up at York as well as other places. There was a slip factory

at Bolsover, Derbyshire, dismantled in 1790. Fragments from the site of these works are in the British Museum.

In this museum also is a puzzle jug (D. 119) inscribed—

"fill me full of Licker that is Seet for
for it is Good when friends do met"
1790 T M 1790

given by Mr. William Edkins, with a note by him attached—"Slip ware puzzle jug—presented to me 7th August, 1890, by Edward Cunnington, Esq., of Evershot, Dorset, who informed me *where* it was made (at Donyat, near Ilminster, Somerset), as he has known the pottery for *many* years past".

Another (D. 121), a very late example, inscribed "September the 4th in the year of our 1822, Dated, this was made at pencoyd in the parish of coychurch, Near Bridgend county of Glamorganshire".

SLOMAN, CHARLES. Worked an unimportant factory called the Mount's Bay Pottery, near Penzance, about 1856.

SMITH, JAMES, Glebe Pottery, Stoke-on-Trent. Earthenware.

SMITH, JOHN. A potter of Nottingham.

SMITH, SAMPSON, Sutherland Works, Longton, Staffs. Established his business about the middle of the nineteenth century, in works of much older date. Who his exact predecessors were we cannot trace, but there is little doubt that he merely continued the manufacture of his specialities, which consisted of Staffordshire figures of the rudest

S. S.

kind: cows, spotted dogs, milkmaids, Wellingtons, Nelsons, etc. There was a joke current in the Potteries, to the effect that the cows' horns and paps, and Wellington's nose, were all made from the same mould, and stuck on the various pieces as required. The figure of Wellington without the nose was said to do duty for several other personages (like Artemus Ward's waxwork of Cole, the Wife "pizener"), including Blücher and Bonaparte. The story is probably exaggerated, but it serves to illustrate very clearly the type of goods made by Sampson, or as he was familiarly called, "Sampey" Smith. The works are continued (under the same style) by Mr. Adderley, and the figures have had a wide circulation in country districts both in England and abroad. The "Sampey Smith" figures are of importance to collectors both on account of their modernity and their frequent resemblance to old Staffordshire figures of the less artistic type. We have seen many "Sampson Smiths," not six months old, offered and bought as genuine "old Staffordshire" figures. The firm, of course, are quite free from complicity, as they make them very cheaply in great quantities in the ordinary way of trade.

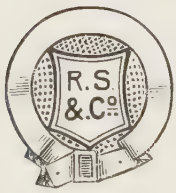
SMITH, WILLIAM. Was potting in 1770.

SMITH, WILLIAM. See Stockton-on-Tees.

SMITH, AMBROSE & CO., Burslem, 1786. Cream-coloured ware and china-glazed ware, painted blue. John and Joseph Smith appear as potting about the same time.

SMITH & STEEL. Tunstall, 1802. Smith & Jarvis were potting at Stoke. Smith & Billington, Cobridge, were also working about the same time.

SOHO POTTERY, LTD., Tunstall, Staffs. Earthenware and semi-porcelain.



SOLON, LOUIS MARC. Although French by birth, M. Solon has played one of the most important parts in the history of English ceramics. He was born at Montaubon in 1835, and studied under M. Lecoq de Boisbaudran. He came to England in 1870, and became associated with the Minton firm, where his greatest triumphs were achieved, in the material known as Pâte-sur-pâte. The work of this distinguished ceramic artist is so universally known that it does not need recapitulation here. M. Solon, however, in the earlier part of his career produced some interesting subjects of a semi-humorous character painted in colours upon earthenware or majolica, never alluded to in ceramic works; such subjects as a poet in mediæval costume rehearsing his productions to a company of geese at sunrise; a youth perched upon the chimney top serenading the moon, etc. Solon married the daughter of M. Leon Arnoux, the Art Director at Mintons. Amongst his many attainments he is an accomplished etcher. He first taught the English people to appreciate their own slip wares, and has contributed perhaps more than any single individual to the success of the Minton firm.

SOLON, LEON. Son of above; studied at South Kensington, afterwards returned to Stoke, and assumed, for a time, the Art Directorship of Mintons in succession to his grandfather, M. Arnoux; has produced a number of designs in the style known as L'Art Nouveau.

SNEYD, T., Hanley. Common wares, early part of nineteenth century. A mark occurs as given—

T. SNEYD
HANLEY
1795

SNIZER. Concerned in a pottery at Lambeth.

SOAR, THOMAS. A gilder at the Chelsea-Derby Works. He set up an enamelling establishment in Navigation Row,

Derby, and advertised his wares in the *Derby Mercury* in April, 1810. "Dessert, breakfast and tea services with arms, crests, cyphers, etc." Gave instruction in china painting.

SPARHAM, JOHN. A painter at Lowestoft.

SPARKES, MRS. An able artist at the Doulton Factory.

SPARKS, GEORGE. A gilder of earthenware at Sleek Lane, Hanley, in 1802.

SPARKS, THOMAS. An engraver at Stoke in 1802.

SPEIGHT. A figure painter at the Rockingham Works.

SPENGLER, J. A Swiss modeller at the Chelsea-Derby Works, engaged by Duesbury in 1790, and reproduced some of the designs of Bartolozzi and Angelica Kauffmann. In the British Museum (III. 2) is a statuette of a girl with an empty bird-cage, incised with the Crown Derby mark and capital S.

SPODE, JOSIAH. Born in 1733 and apprenticed in 1747 to Whieldon, his fellow-apprentices being Aaron Wood the block-cutter, W. Greatbach, and Robert Garner. He married at the age of twenty, and his son, the second Josiah, was born in the year of the completion of the father's apprenticeship, during which year, 1754, he was receiving from Whieldon the munificent sum of 7s. 6d. weekly. Upon the completion of his apprenticeship he opened a small manufactory on his own account at Stoke, and made cream ware, blue painted and other wares. Little is known of his early career or productions. In 1770 he took the works at Stoke previously occupied by Banks & Turner and produced white stonewares. Here he continued the production of white stoneware and also made jasper and cane ware, but undoubtedly the bulk of his productions were the cream wares on Wedgwood's lines. His business rapidly increased. He engaged a traveller named William Copeland, a native of Stoke. A London warehouse was opened in Fore Street, Cripplegate, with Copeland as manager, and afterwards larger premises in Portugal Street, Lincoln's Inn Fields, on the site of the historic theatre in which David Garrick made his first appearance. His son, the second Josiah, was

about this time, or a little later, taken into partnership, and sent to London to assist in the warehouse.

On the death of Josiah Spode in 1797 his son, the second Josiah, returned to Stoke. Mr. William Copeland was admitted as partner and entrusted with the care of the London warehouse.

Spode was one of the first to employ Thomas Minton, the engraver of Caughley, and at this time a great deal of transfer-printed wares were produced.

In 1800 porcelain was introduced, and Spode is credited with being the first to make use of bone in the body, and also the material known as "Felspar". This, however, has been disputed by Professor Church.

In 1805 Spode introduced his celebrated opaque porcelain or ironstone china, for which there was a large sale, both in this country and on the Continent, especially France.

The second Josiah Spode died in 1827, aged 73. His partner, Mr. William Copeland, had died the year previously, and had been succeeded by his son William Taylor Copeland, Alderman of the City of London, and afterwards Lord Mayor (in 1835-36). The style of the firm had been Spode, Son & Copeland.

The third Josiah Spode died in 1829, two years after his father. Alderman Copeland then carried on the business by himself until 1833 when he purchased the entire concern from the executors of Josiah Spode the third. The history of the firm from this period onwards is given under Copeland (which see).

The earliest mark is the word "SPODE" in caps, sometimes impressed in the clay and at others printed in the colour of the pattern. On china it was usually painted by the decorator.

A teapot, sugar box and cream, of buff ware, glazed inside, with modelled ornaments in the Adams style, the ornamental parts in enamelled blue, formerly in the collection of the late

Mr. G. W. Rhead, senior, and illustrated in *Staffordshire Pots and Potters*, is marked "Spode". It was obtained direct from the third Josiah Spode, and is an excellent example of this class of ware produced by the first Josiah, and will bear comparison with Wedgwood at his best.

The word "Spode" was also used in lower-case letters with capital S. In the British Museum (R. 20) is a dish of cream ware with a border of vine painted in black, stamped "Spode," this doubtless being an example of the cream ware produced by the first Josiah in the early period of the firm.

The word "Spode" (caps) with "Felspar Porcelain," and "Spode" in Gothic letters with "Felspar Porcelain" and a wreath, were printed on the china when felspar was introduced.

SPODE
Felspar Porcelain.

The word "Spode" (caps) was used on a tablet across a square Chinese mark for ironstone china.

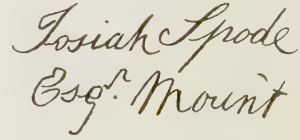
The word "Spode" (caps) on a ribbon, "Spodes new Fayence" within a cartouche and "Spode's Imperial" (Gothic characters) were printed upon various kinds of ware.

"Spode, Son & Copeland" and "Spode & Copeland" are both impressed and printed.

SPODE SON & COPELAND

SPODE & COPELAND

This mark is scratched on the bottom of a coloured earthenware bust of Spode in the Stoke Museum, the "Mount" being his place of residence.



SPODE, SAMUEL. The second son of the first Josiah Spode. His name appears as potting in 1802. He occupied the Foley at Lane Delph, and was succeeded in 1829 by Charles Bourne, who carried on the works until 1843.

SPRIMONT, NICOLAS. See Chelsea.

STANLEY, JOHN, Hanley, 1802.

STAR CHINA CO., Atlas Works, Longton, Staffs. Successors to Chapman & Co.

STEEL, AARON. A painter employed by Wedgwood at Etruria.

STEEL, DANIEL, Burslem, 1766-1824. One of the many imitators of Wedgwood. In the British Museum (K. 26) is a pair of vases of blue jasper dip with white reliefs of cupids, etc., stamped "STEEL". He occupied the Scotia Works in 1802 and afterwards removed to Nile Street. Some of his productions are marked "STEEL, BURSLEM".

STEEL, MOSES. Made "cloudy" wares at Rotten Row, Burslem, in 1710.

STEEL, THOMAS. Given in Ward's list as potting in Burslem in 1750.

STEELE, EDWARD. Occupied the Cannon Street Works which had been carried on by Thomas Ford. Produced earthenware, stoneware, majolica and Parian, about 1850.

STEELE, THOMAS. A flower painter at the Derby Works. He afterwards went to Staffordshire and was employed by Davenports, Longport.

STEPHAN, P. An extremely able modeller at the Derby Works. In the British Museum is a fine statuette in Derby biscuit of Lord Howe, modelled by Stephan about 1794 (?). The mark incised on the piece is given under "Derby"—the crown Derby mark and N. 384. He had previously been modeller at Coalport.

STEPHAN, PETER. Son of above. Established small works at Jackfield, where he produced blue printed wares together with encaustic tiles. A few pieces appear with the mark of an anchor impressed.

STEVENSON. Shaw refers to a series of busts of eminent men produced in 1828 by Alcock & Stevenson. Chaffers says that the firm was Ralph Stevenson & Sons in 1834, and that they gave up business in 1840.

STEVENSON, ANDREW. Early in the nineteenth century the firm of Bucknall & Stevenson were potting in Cobridge, and producing ordinary wares. Bucknall appears to have retired and Stevenson carried on the works alone. He sent a Dublin artist named W. G. Wall to America to make sketches of the more important places in New York and other States. These were engraved and produced as a set of American views. A set of English views was also produced. He was succeeded by J. & R. Clews in 1818. The marks are various, in some instances Wall's name appears as well as Stevenson's. The word "Stevenson" is found impressed, and a circular impressed stamp with a crown, and the words "A. Stevenson, warranted Staffordshire" often accompanied in both instances by a printed mark of the American eagle.

STEVENSON, RALPH. Also potted at Cobridge, and produced blue printed. A set of English views is marked "R. Stevenson". A set of American views, chiefly New York and Boston, is marked "Ralph Stevenson". Some "American views," "English views," "British lakes," etc., are marked

"R. S." One Williams appears to have subsequently been in partnership. A set of American views and portrait and medallion pieces are marked "R. Stevenson & Williams"; "R. S. W." and "R. S. & S." also appear. The accounts of these Stevensons are somewhat conflicting. Chaffers states that Stevenson & Dale founded the works in 1802, and that the firm was Ralph Stevenson in 1815, continuing until 1840. For the later history of the works, see Brownfield, W., & Sons.

STEVENSON, JOHN. A modeller at Lowestoft who subsequently went to Worcester.

STEVENSON, MRS. A painter at Lowestoft.

STEPHENSON, SAMUEL. Belfast pottery.

STEVENSON, W. A china pedestal with blue ground and figures of Ganymede, etc., appears in the South Kensington Collection bearing the accompanying mark—

W. STEVENSON
HANLEY
May 2
1802.

STEVENSON & HANCOCK. See Derby.

STEVENSON, SHARP & CO. Successors to Locker & Co. in the manufactory at King Street, Derby, after 1859. See Derby.

STIFF, JAMES & SONS. See Lambeth.

STINTON. An able flower painter of Worcester.

STIRRUP, THOMAS, Lane End, 1802. Occupied the Peel Pottery; successors—Messrs. Bell, Deakin & Proctor; Deakin; Webb & Walters; Webb & Co.; John Green.

STOCKTON-ON-TEES. In the early part of the nine-

teenth century one John Whalley, a Staffordshire man, entered into partnership with William Smith and William and George Skinner of Stockton-on-Tees. They made Queen's ware in imitation of Wedgwood, and adopted Wedgwood's name with an "e" added. In 1848 Messrs. Wedgwood obtained an injunction restraining them from using the name Wedgwood or Wedgewood. Examples of their ware appear marked "Stockton Pottery" (caps), "Wedgewood" (caps) and "W. S. & Co., Queen's ware, Stockton".

STOCTON
POTTERY

WEDGEWOOD

WS & COs
WEDGEWOOD

WS & CO
QUEENS WARE
STOCTON

STONE. Partner in Warburton & Stone, who appear in the list of potters who in 1770 bound themselves not to sell under specified prices.

STONIER, JOHN. A traveller who started business as a china and glass dealer in Liverpool in partnership with a Mr. Livingstone. He afterwards joined the Hanley firm of Powell & Bishop, which subsequently became Bishop & Stonier. See Bishop & Stonier.

STRATFORD-ON-AVON. There is a small factory here in the occupation of Mr. Alfred Espley.

STRINGFELLOW, WILLIAM. Concerned in a Delft ware factory which existed in Dublin during the middle of the eighteenth century.

STUBBS, JOSEPH. Established the Dale Hall Works at Burslem in 1790 and worked them until 1829, when he was succeeded by the brothers Mayer. Stubbs made a quantity of very excellent blue printed, chiefly for the American market. Amongst these is a set of American

views with an eagle and scroll border, much appreciated by collectors, especially in America. The mark is "Joseph Stubbs, Longport" in a circle with star in centre. The mark "Stubbs & Kent, Longport," appears on many pieces, which indicates that Kent was taken into partnership. He was succeeded by the three brothers Mayer, Jos, Thomas and John.

STUBBS BROS. & JOHN CHEW, LTD., Mill Street Works, Longton, Staffs. China. Now out of business.

SUMMERLY, FELIX. Under this appellation Mr., afterwards Sir Henry Cole, organised, about 1845, a combination of artists, including John Bell, Creswick, Dyce, Maclise, Mulready and Westmacott for the production of "art manufactures". It was a serious effort to improve public taste in matters of art, at a time when such an effort was greatly needed. The Summerly art manufactures included pottery as well as other crafts. A plain white tea service with modelled ornaments, designed for the Society of Arts prize in 1846, appears in the Bethnal Green Museum. The teapot has a ram's head on cover, goat's head on handle, and leopard's head for spout, associated with vine branches, the forms being extremely refined. The ware was produced by Minton and the mark is given.

SUNDERLAND. Several factories producing ordinary earthenwares were working in the neighbourhood of Sunderland in the latter half of the eighteenth century. Between 1730 and 1740 Warburton was making white earthenware at the Carrs Hill Pottery, near Gateshead. It continued until 1817.

A works was established at Newbottle by a Mr. Byers about 1755.

Several potteries were established at North Hylton about the beginning of the nineteenth century. The one founded earlier by the Malings, and transferred to Newcastle-upon-Tyne in 1817, is referred to under "Newcastle-upon-Tyne". Messrs. Dawson had a pottery at Hylton, and also Messrs. Phillips. A large jug in the South Kensington Collection, transfer printed with view of the Wear Bridge, roughly smeared with purple lustre, is inscribed "J. Phillips, Hylton Pottery". A similar jug with the same view and similar lustre smearing is marked "Dixon, Austin & Co., Sunderland," who established works about the beginning of the nineteenth century and afterwards became Dixon, Austin, Phillips & Co.

The Garrison Pottery was also founded by Mr. Phillips and afterwards carried on by the same firm, who produced Queen's ware, printed, painted and lustred wares, as well as figures. The style of the firm was in the order given:—

PHILLIPS & CO. PHILLIPS & CO.
Phillips & Co. SUNDERLAND 1813
PHILLIPS & CO.
SUNDERLAND POTTERY
DIXON, AUSTIN & CO. SUNDERLAND
W. Dixon Dixon & Co. Dixon & Co. Sunderland Pottery
DIXON, AUSTIN & CO. DIXON & CO.
Sunderland Pottery Sunderland Pottery
DIXON & CO.
SUNDERLAND

A set of figures of the four seasons in the Falkner-Sidebotham Collection after the Whieldon models are marked "Dixon, Austin & Co." impressed.

Scott & Co. had potteries at Southwick in 1789. A cup and saucer at South Kensington with blue rim, lustred with a pattern in bronze, is marked "Scott".

Moore & Co. worked the Wear Pottery, Southwick, 1803.

The Ford Pottery, or South Hylton Pottery, was carried on by Messrs. John Dawson & Co. until 1864 when it was closed. The mark "DAWSON" appears impressed. The name "FORD" also appears, and "Ford Pottery, South Hylton, 1800".

SWADLINCOTE, Burton-on-Trent. Thomas Sharpe manufactured here 1821-1838, and made stone bottles, toby jugs, etc., marked "Sharpe, Manufacturer, Swadlincote," in caps, and "THOMAS SHARPE" or "T. SHARPE" impressed. Upon his death the firm was carried on by his brothers under the style of Sharpe, Brothers & Co.

Other works were established at Swadlincote in 1790 by John Hunt, succeeded by Thomas Woodward and afterwards by his son James Woodward. See Woodward, James, Ltd.

SWANSEA. One William Coles obtained, in September, 1764, a forty-one years' lease for the erection of a pottery in a place called the Strand, Swansea, for the production of earthenware and salt-glazed wares. The venture evidently did not prove a very great commercial success, as the works were offered for sale in 1783. They were acquired by Mr. George Haynes about 1790 who styled them the Cambrian Potteries and much enlarged the premises.

Haynes produced a body which he called "opaque china," which was in reality a fine earthenware, and also a cream-coloured ware. He also made porcelain. Salt-glazed ware continued to be made during the Haynes period, as isolated examples, enamelled in vivid colours, exist marked "Cambrian Pottery". The mark "G. H. & Co." also occurs.

In the Victoria and Albert Museum is an earthenware figure marked in brown "Cambrian Pottery" and a vase marked "Cambrian" in cursive letters. A ewer with printed Greek figure on a blue ground is stamped "opaque porcelain". In the British Museum (P. 1) is a fluted vase in blue and choco-

late colour, with a band of arabesques round the middle, marked "SWANSEA".

In 1801-1802 Mr. Lewis Weston Dillwyn, who had been part proprietor, purchased the works, Haynes remaining as manager. Dillwyn had an able assistant in the person of William Weston Young, who had been employed by him in his works on Natural History. This artist decorated a number of examples of opaque china with extremely careful representations of butterflies, shells and plants, often with their scientific names added.

In 1810 the Bevingtons succeeded Haynes as managers, and became part proprietors at some period between that date and 1817.[1]

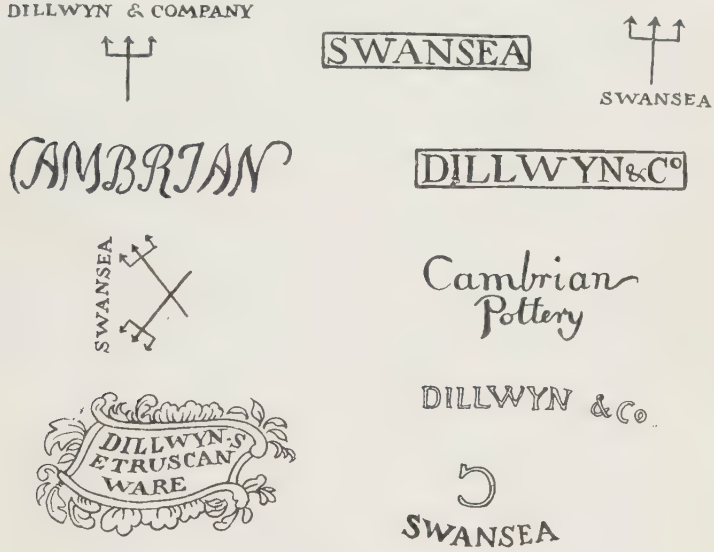
It was in 1814 that Billingsley and his partner Walker were invited to Swansea from Nantgarw (see Nantgarw), and during this period (1814-1817) two kinds of porcelain were made, *viz.*, Billingsley's soft paste, and a harder body produced by Dillwyn as an improvement on Billingsley's. Dillwyn also produced an Etruscan ware, decorated with classical figures, ornaments, etc., painted in enamel, the mark printed.

Upon the return of Billingsley and Walker to Nantgarw in 1817 the manufacture of porcelain was discontinued at Swansea, and earthenware again was manufactured. In this year Dillwyn retired and the works were taken over by Messrs. Roby, Haynes & Bevington. In 1824 Dillwyn again became associated with the firm, his son acting as manager. In 1850 the works were taken over by Messrs. David Evans & Glasson, and by 1870 they were finally closed.

The principal Swansea artists were—Thomas Baxter, who left Worcester and worked for Swansea between 1816 and 1819; W. Young, who worked from about 1802-1819, when he took over the Nantgarw Works; William Pollard, flower painter;

[1] Turner, *Ceramics of Swansea and Nantgarw.*

Henry Morris, also a flower painter and pupil of Billingsley; Beddow, an heraldic painter; Evan Evans, flowers.



The earliest mark on porcelain was the word "Swansea" impressed, to which a trident, also impressed, was subsequently added. The name "Bevington & Co." also occurs.

SWANSEA, Landore Pottery. Mr. John Forbes Calland established in 1848 a pottery on the canal about a mile from Swansea. This was worked until 1856 and discontinued in that year. The productions were dinner, tea and toilet ware, in white earthenware. The marks used were:—

J. K. CALLAND & CO. LANDORE POTTERY and CALLAND SWANSEA

The stock, copper plates, etc., were transferred to the South Wales Pottery at Llanelly.

SWINTON. See Rockingham.

TALOR, WILLIAM. See Slip Wares.

TAMS, JOHN, & SON, Crown Pottery, Stafford Street, Longton, Staffs. Earthenware.

TAMWORTH. There are two important terra-cotta works in this neighbourhood, one established in 1847 by Messrs. Gibbs & Canning, producing architectural terra-cotta work. Also at Wilnecote terra-cotta sanitary and stoneware is produced by George Skey & Co.

TAYLOR, GEORGE, Hanley, 1786, working in 1802. An enamel teapot appears in the Bethnal Green Museum marked "G. TAYLOR".

TAYLOR, ROBERT MINTON. See Campbell Tile Co.

TAYLOR, THOMAS. Made moulded wares in Burslem in 1710. Another Thomas Taylor was making "stoneware and freckled" in the pottery "next to the north," and also appears as potting in 1750.

TAYLOR, WILLIAM. A painter of the Chelsea-Derby Works. A William Taylor was also employed at Worcester (Flight, Barr & Barr) in 1819, and executed blue paintings.

TAYLOR, WILLIAM HOWSON, Ruskin Pottery, West Smethwick, Birmingham. Is producing a very excellent class of artistic pottery in coloured flowing glazes in emulation of the Orientals. The shapes are well proportioned, and are founded upon Oriental and classic models, although without servile imitation. The colour effects of the Chinese potters, Sang-de-boeuf, Fleur-de-Péche, etc., are reproduced. He has given it the name of "Ruskin" ware. In some instances painted patterns, borders, etc., are happily introduced in addition, and on the top of the coloured glazes. These examples

are usually marked with the representation of a pair of scissors, and the word "TAYLOR" in caps impressed. The plain-glazed specimens are impressed "TAYLOR".

TAYLOR & KENT, Florence China Works, High Street, Longton, Staffs.

TAYLOR & POPE. Were potting in Shelton in 1786.

TAYLOR, HARRISON & CO. See Castleford.

TAYLOR, JOHN & CO. John Taylor appears as a potter in Burslem in 1770. John Taylor & Co. were potting in Burslem in 1802.

TAYLOR, TUNNICLIFF & CO., LTD., Eastwood, Hanley, Staffs. Worked first at Broad Street, Hanley, and afterwards at Eastwood Vale, where they produce door furniture and fittings, etc., of a very good quality.

TAYLOR, WILLIAM, SON & CO. Occupied Joseph Mayer's Works at Hanley in 1830, afterwards worked by W. Ridgway & Son; one of the pot works which this latter firm

occupied when Mr. William Ridgway and his brother John parted company in 1830.

TEBO. An Italian figure modeller who worked for Bow, Bristol and other potteries. His mark is the letters T. O. which occur on a set of Bristol figures of the seasons, in the Schreiber Collection; a set of the elements in the British Museum, also on a tea jar (V. 3, British Museum). For marks, see Bow.

TELLWRIGHT & CO., Burslem, 1802.

THOMPSON, CHRISTOPHER. See Newcastle-upon-Tyne.

THOMPSON, JOSEPH. Worked the Wooden Box and Hartshorn Potteries about 1818. Produced stoneware, terra-cotta, black, and Rockingham wares; marks as given. The present proprietors are the sons of above. The style is Thompson Brothers.

JOSEPH THOMPSON

WOODEN BOX

POTTERY

DERBYSHIRE

THURSFIELD, JOHN & RICHARD. See Jackfield.

TICKENHALL. See Slip Wares.

TILL, THOMAS, & SONS, Sytch Pottery, Burslem, Staffs. An old-established pottery originally worked by Messrs. Keeling, afterwards by R. Hall and Messrs. J. Hall & Sons. Messrs. Barker, Sutton & Till occupied the works about 1832 and made figures as well as other wares. A bust of William Clowes, primitive methodist preacher, occurs, marked at back in transfer

"B. S. & T. Burslem". From 1850 it has been in the hands of Mr. Thomas Till (Till of the Sytch) and his sons, who produced good lustred wares among other things. A variety of work is now produced.

TINWORTH, GEORGE. An extremely skilful modeller who has been associated with Doultons since 1867. He is the son of a wheelwright and was born at Walworth in 1843. He became a student at the Royal Academy in 1864 and shortly afterwards exhibited at their exhibition. His work attracted the notice of Ruskin, and for some time had a considerable vogue. He is an indefatigable worker, and has produced a number of religious subjects in alto-relievo, the most successful of which are perhaps those on a small scale, bearing comparison with the Italian terra-cotta work of the great time. He is still working for Messrs. Doulton.

TOFT, CHARLES. An able craftsman employed at Mintons during the seventies and eighties of the nineteenth century. Made replicas of faïence d'Orion, executed a number of sgraffito and damascened vases, left Mintons in 1883 to commence business for himself at Cliff Bank, Stoke, at the works made famous by Whieldon and Wedgwood's occupation. He potted for a short time only, and died a few years later.

TOFT & KEELING. See Johnson Brothers.

TOFT & MAY. See Johnson Brothers.

TOFT, THOMAS & RALPH. See Slip Wares.

TOMKINS, JAMES. A painter of Worcester (Flight, Barr & Barr) in 1819.

TOMLINSON, WILLIAM. See Ferrybridge.

TOOTH & CO. See Bretby.

TORKSEY. There was a pottery at Torksey, Lincolnshire, at which William Billingsley was employed in 1804.

TORQUAY TERRA-COTTA CO., LTD., Hele Cross, Torquay. Established in 1875 by Dr. Gillow, who discovered an excellent deposit of fine clay, of a very durable quality and of a fine rich red. The company produce statuettes, figure groups, busts, animals, birds, etc., vases, ewers, plaques, and many articles of domestic use.

TUNDLEY, RHODES & PROCTER, Swan Bank Works, Burslem, 1860-1880.

TUNSTALL, THOMAS, Golden Hill, 1802. There were Tunstalls potting in Burslem prior to 1710.

TURNER, JOHN. One of the ablest potters of the eighteenth century, and amongst the most successful of Wedgwood's many rivals and imitators. He was, according to Shaw, making white stonewares at Stoke about 1756, in partnership with R. Bankes, on part of the premises of Josiah Spode. He removed to Lane End in 1762, where he made black basaltes, jasper, cane coloured and stonewares, which in their way are unrivalled. His basaltes quite equalled Wedgwood's both as regards texture and finish. His jasper had a purplish hue which is preferred by some to that of

Wedgwood. He did a considerable trade with France, and died in 1786.

TURNER, JOHN & WILLIAM, sons and successors of above. They continued their father's productions, and, in 1800, obtained a patent for a new method of manufacturing porcelain and earthenware by the introduction of a material known as Tabbener's Mine Rock. A bowl in the South Kensington Collection is marked "Turner's patent". The works were finally closed in 1803 owing to losses occasioned by the troublous times of the Revolution, France being their best market. The marks were the word "TURNER" and occasionally, on printed and other wares, the Prince of Wales's feathers with the name beneath.

TURNER

TURNER, THOMAS. Born in 1749, served his apprenticeship at Worcester, became partner in the Caughley Works in 1772, and directed the works, until closed in 1799. See Caughley.

TWEMLOW, G. Appears in the survey of 1786 as potting in Shelton.

TWEMLOW, JOHN. Was in business in 1797. Jewitt speaks of an invoice in his possession showing that he made "Egyptian black teapots, capped, festooned and figured," also "Octagon teapots with scolloped tops," "blue and enamelled handled cups and saucers, sprig and border and vine pattern," and "bowls to match".

TWYFORD, JOSIAH. Very little is known of this potter. He is referred to by Shaw as the first to introduce the use of pipeclay into Staffordshire. His association with the brothers Elers and his strange behaviour for the purpose of obtaining information is, however, sufficiently well known. He commenced potting at Shelton, and produced wares similar to the Elers, together with salt glaze and Delft. An octagonal

Delft plate in the South Kensington Collection painted with a river scene is marked in blue—

"I. T. March Ye 1. $17\frac{39}{40}$"

TWYFORD, THOMAS W. This is a descendant of Josiah Twyford. The business was transformed into a limited company in 1897. See next following.

TWYFORDS, LTD., Cliffe Vale Potteries, Hanley, Staffs. Sanitary ware.

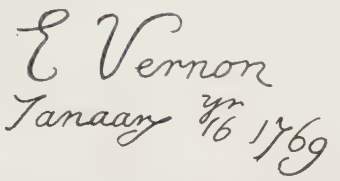
UPCHURCH. The neighbourhood of Upchurch, on the banks of the Medway, was the site of extensive potteries during the Roman occupation of these islands. Large quantities of fragments are to be traced along the shores, and many more or less perfect examples appear in the different museums and private collections. The ware was made of the local clays, and presents a bluish-black appearance from having been fired in "smother kilns".

UPPER HANLEY POTTERY CO., LTD., Brownfield Works, Cobridge, Staffs. Worked by the Grimwade Syndicate.

U. H. P. CO.
ENGLAND.

VAUXHALL. A pottery existed at Vauxhall in the time of the Stuarts and possibly earlier. It was situated near the bridge, and during the latter part of the eighteenth century was in the occupation of Mr. Wagstaffe, who worked it until his death in the early years of the nineteenth century. It was then carried on by his nephew John Wisker, and in 1835 it was acquired by Mr. Alfred Singer, who worked it until 1865 when it was closed. During the earlier history of the factory Delft wares were made, and at the latter period salt-glazed stonewares.

VERNON, E. This inscription occurs on a small salt-glaze workman's palette in the museum, Stoke-upon-Trent.



VERNON, SAMUEL. An engraver of Shelton in 1802.

VOYEZ, JOHN. A clever but rascally French modeller who settled in the Staffordshire Potteries about the middle of the eighteenth century; worked for Wedgwood, Palmer of Hanley, and other potters. In 1773 he published a "catalogue of intaglios and cameos after the most esteemed of the antiques made by J. Voyez, sculptor, member of the Royal Society of artists of Great Britain, and to be sold at his house at Cobridge, near Newcastle, Staffordshire". The jug by which he is best known, representing a trunk of an oak-tree, with two rustic figures, appears in many collections and is signed "J. Voyez, 1788". A number of inferior variations of it are extant. About 1785 he was for a short time in partnership with T. Hales of Cobridge. (See Hales, T., and Palmer, H.)

J.VOYEZ

Other pieces signed by Voyez appearing in public museums are—a match holder formed of a tree stem, with boy and girl, lambs and dog. A plaque with three grooms drinking, an empty cask for table—Victoria and Albert Museum. Oblong panel, cream ware mottled, with two female terminal figures holding a festoon, vase in the centre—British Museum, K. 8.

WADE & CO., High Street Works, Burslem, Staffs. Terra-cotta teapots and tiles.

WADE'S.

WAGSTAFFE. See Vauxhall.

WAINE, CHAS., & CO., Longton, Staffs.

WAINWRIGHT & CO. See Leeds.

WAITE, MR. A blacking manufacturer, who worked a pottery at Shipley about 1825 and produced bottles for his own blacking. In 1845 the works were acquired by Mr. J. Bourne of Denby and worked until 1856, when the stock, plant, etc., were removed to Denby.

WAKEFIELD, ROBERT, Stoke, near Coventry. Flower pots, etc.

WALKER, SAMUEL. Son-in-law to William Billingsley and partner with him in the Coalport, Nantgarw and Swansea Works (which see).

WALKLETE, MARK. Lane End. Between 1786 and 1802.

WALL, W. G. See Stevenson, Andrew.

WALLEY, J. The Villa Pottery, Cobridge, which had been occupied by Warburton, was, in 1835, carried on by Messrs. Jones & Walley. They made various kinds of earthenware, including figures. In the Frank Falkner and Dr. Sidebotham Collection is a stag and pair of hinds reclining, impressed J. WHALLEY'S WARE. In 1865 the works passed into the hands of Messrs. Wood, Son & Co.

WALL TABLETS. Pottery has been employed both in Staffordshire, Kent and other places, at various periods, for commemoration and other tablets for insertion in the walls of houses: in Staffordshire headstones of pottery were common in the churchyards of the district during the eighteenth and latter part of the seventeenth centuries. Miss Meteyard (*Life of Wedgwood*) refers to several wall tiles as having been rebuilt for preservation in the side wall of a house at Stroud. This author figures a lozenge-shaped tablet of light brown clay with inscription in slip—

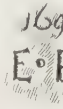
D
R S
1675

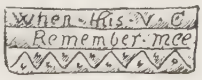
Another of similar shape inscribed "B. W. 1692" (Burslem Wedgwood, the second, born 1646), which was inserted in

premises belonging to the Wedgwood family and was in existence at the time Miss Meteyard wrote. Another in Delft ware painted in blue with an elaborate coat of arms in the style of the Delft dishes, and inscribed "T. E. 1753".

The tablet here given is a large encaustic tile, red and buff, and still exists in Penkhull Lane, Stoke-on-Trent.

Of memorial tablets or headstones, one of the earliest extant is the well-known example in the British Museum with the initials "E. E.," the date 1695 and this inscription, "When this V. C. remember mee".





In the Mayer Museum at Liverpool are a number of these headstones, one of the earliest being dated 1728. Another, "Here Lyeth the bodey of Thomas Coleough aged 70, 1737". Another, "MM. 1736, aged 81"; another, "IM. 1738". Two others are dated 1745 and 1755 respectively. The sizes vary from a foot to two feet and a half. They are usually in the common clays, buff, brown or red, glazed and unglazed, with the decorations invariably in slip.

WALTON, JOHN, Burslem. Commenced business about 1790. His productions were chiefly figures and toby jugs, of which he made a large quantity. He was one of the potters, amongst whom were Ralph Salt

and Wood and Caldwell, who made the chimney figure ornaments with the spreading tree backgrounds about the beginning of the nineteenth century. His best-known work is the standing toby, of which an example appears in the British Museum (H. 79), and of which many variations are extant. His mark is the word "Walton" impressed on a raised ribbon, usually placed on the base or back of the piece. Walton also made Egyptian black and other wares. The manufactory was discontinued about 1839.

WANDSWORTH. A pottery owned by Mr. Ruell existed in Garrett Lane, Wandsworth, in 1808. The vestry on 14th October of that year ordered it to be assessed.[1] A house in Garrett Lane (now destroyed) was built of the fragments from this pottery, *i.e.*, the vitrified bricks from the oven, etc. A bridge of similar material still exists in the immediate vicinity.

WARBURTON. John Warburton is the first of this important family of potters of whom we have any definite record. He appears in Wedgwood's list as potting at Hot Lane, Cobridge, in 1710, but the productions are not stated. They were doubtless the ordinary wares of the period Egyptian black, salt glaze and afterwards cream colour. Upon the death of John Warburton, his widow, Mrs. Ann Warburton, carried on the works, and is credited with having in 1751 effected certain improvements in cream ware before the body was perfected by Wedgwood. Up to 1769 we find Wedgwood sending tea services, etc., to Cobridge for the purpose of being enamelled at Mrs. Warburton's works.

Jacob Warburton was the son of John and Ann Warburton, and was one of the syndicate of potters who in 1770 bound themselves not to sell under specified prices. The names of Thomas Warburton, Ann Warburton & Sons, and Warburton & Stone occur in the same list. John Warburton occupied two potteries at Cobridge in 1802. Jacob Warburton was in partnership with Samuel Hollins, and, in 1777, upon the trans-

[1] Extract from vestry minutes.

ference of Champion's patent to the Staffordshire syndicate, they removed to the New Hall Works at Shelton, and traded under the style of Hollins, Warburton & Co., the syndicate consisting of Samuel Hollins, Anthony Keeling, John Turner, Jacob Warburton, William Clowes, and Charles Bagnall (see New Hall).

WARBURTON. See Carr's Hill Pottery, Gateshead.

WARD, WILLIAM, Lane End, 1802.

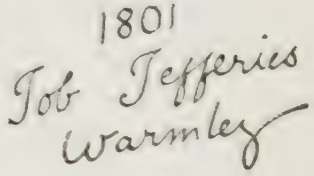
WARDLES ART POTTERY, LTD., Washington Works, Victoria Road, Hanley, Staffs. Vases and fancy ware, in imitation of majolica, often of an artistic type.

WARDLE
ENGLAND.

WAREHAM, JOSEPH. An extremely able painter of flowers, birds, etc., in the Dresden and Sèvres style. Served his apprenticeship at the New Hall Works, afterwards worked at the Don Pottery. Migrated to London where he worked for Mortlock. Engaged by Herbert Minton at some date between 1846 and 1849. Made the journey from London to the Potteries with his family and furniture in a canal boat; landed at Ebberns Wharf, Stoke-on-Trent. He boasted that he had worked for all the crowned heads of Europe. He did not sign his works.

WARLAND, THOMAS. At the death of John Dwight of Fulham, about 1737 (the date is not accurately known), the works were carried on by his daughter Margaret, in partnership with Thomas Warland. They worked the business until 1746, in which year they became bankrupt. Margaret Dwight afterwards married William White, and the factory remained in the White family until 1862.

WARMLEY, near Bristol. A small pottery was working here at the close of the eighteenth century making coarse ware of a yellowish red clay, with a brown slip and somewhat metallic. The mark occurs on a covered pot ten inches high in the collection of General Terry who has other examples also, obtained from the grandson of the man who made them.



WARNER. Partner in Ludwig & Warner, successors to Johanna Hempel in the Crucible Factory at Chelsea, 1797.

WARNER, EDWARD. Sold potters' clay to the London potters, and exported it to Holland as early as 1688.

WARRILOW, GEO., & SON, Queen's Pottery, Sutherland Road, Longton, Staffs.

WARRINGTON. See Ellis, Joseph.

WASHINGTON CHINA WORKS, Burslem. The pottery produced at these works under the direction of Mr. W. Moorcroft takes rank among the more interesting developments of the potter's art in this country. The decorations are usually based on natural forms, the outlines are executed upon the unfired body in slip and are therefore in slight relief. The pattern is further emphasised by the addition of colour flown between the raised outlines, also in the clay state. The glaze is extremely hard, necessitating a very high temperature in the firing; the range of colours, varying between celadon greens and deep mazarine blue, is as a consequence somewhat restricted. The general effect, however, is extremely rich and harmonious. The "Florian" ware, designed by Mr. Moorcroft for Messrs. Liberty & Co., is a very successful treatment of fungoid growths, also in raised outline.

WEAR. Partner in W. Ridgway, Morley, Wear & Co.,

who succeeded Hicks, Meigh & Johnson of Shelton in 1836, and worked the factory until 1845 when William Ridgway retired, and the firm became F. Morley & Co.

WEAR POTTERY. See Sunderland.

WEATHERBY, J. H., & SONS, LTD., Falcon Pottery, Hanley, Staffs. Produce ordinary earthenware.

WEBB, THOS., & SONS, LTD., Dennis Glass Works, Stourbridge. Table glass.

WEDGWOOD, JOSIAH. The story of Wedgwood's life has been told so often that it will only be necessary here to recite the leading facts. He was the youngest of thirteen children, and was born at Burslem in 1730.

His father died in 1739, and Josiah at the age of nine entered the works of his eldest brother Thomas. A virulent attack of small-pox in 1741 left him somewhat of a weakling, and it was not until 1744 that he was formally indentured to his brother for a period of five years.

Upon the completion of his apprenticeship Wedgwood served a further period of two years to his brother as journeyman at a small wage. Having at the close of this period made unsuccessful overtures to his brother for partnership, Wedgwood accepted the offer of John Harrison, a tradesman of Newcastle-under-Lyme, of partnership in small works at Cliff Bank, Stoke, belonging to a potter named Thomas Alders, Harrison supplying the bulk of the capital, and Wedgwood putting in the legacy of £20 from his father which had then become due to him.

The partnership was of short duration; how long it lasted it is impossible to say; it is generally believed, however, that the period of Wedgwood's subsequent partnership with Thomas

Whieldon was 1754-1759. The latter date is determined by Wedgwood himself in the first volume of his MSS., in which he enumerates the different classes of ware produced about the beginning of the year 1759 "in my partnership with Mr. Whieldon," *viz.*, white stoneware (salt glaze), "the principal article of our manufacture," and "an imitation of tortoise-shell," etc.

In the spring of this year (1759) Wedgwood's partnership with Whieldon terminated, and he commenced business on his own account at the Ivy House Works, Burslem, which were rented to him by his cousins, John and Thomas Wedgwood of the Big House, for the yearly sum of £10. Here he made white wares, *i.e.*, the cream ware originally initiated by the elder Astbury and continued by other potters; his green-glazed ware which was fast securing him a reputation; relief tiles and various ornamental articles; his business so far increasing in a few years as to warrant his entering the estate of matrimony (1764), and the occupation of the Brick House Works at Burslem.

Wedgwood's lifelong friendship with Bentley commenced in 1762. The partnership, however, was not entered into until 1768. Two years afterwards Wedgwood removed to the new works and residence which he had built at Etruria, and from this period onwards his career was one continued triumph.

There is practically no ware that Wedgwood did not either make or attempt to make, but the wares with which his name is more intimately associated are the following:—

1. Jasper. This may be said to be Wedgwood's invention, although the principle of it was not new. It was first made solid, that is, coloured throughout. Afterwards Wedgwood invented a system by which the surface only was coloured; its invention being the outcome of the then high price of cobalt. There are seven colours in jasper ware, *viz.*, blue (various tints), lilac, pink, sage green, olive green, yellow and black, but the blue only is solid. Jasper dip was invented in 1777.

2. Basaltes. The black ware, of which a large quantity was made.

3. Red ware, or "Rosso Antico," an imitation of the red ware of the Elers.

4. White semi-porcelain or stoneware.

5. Variegated ware. This is of two kinds, one in which the surface *only* was marbled or mottled in various ways, the other variegated throughout the body of the ware, *i.e.*, different coloured clays employed in its composition.

6. Cream ware. This includes figures, of which Wedgwood made a number, and also the fine lustred wares, which are unrivalled.

There is no record of the exact time when Wedgwood began to mark his wares. The productions of the Ivy House period bear no mark, as also some early pieces made at Etruria, Wedgwood during the earliest period following the example of his quondam partner, Whieldon, of leaving his productions unmarked. Mr. Rathbone (*Old Wedgwood*) gives the accompanying mark as occurring on a Queen's ware tea-pot supposed to have been made at Burslem, the letters being placed irregularly.

Wedgwood

The marks "Wedgwood" in caps, two sizes, and "Wedgwood" in lower-case letters with capital W are given by Mr. Rathbone as being used previously, and up to the date of Bentley's partnership, and found upon specimens said to have been purchased about that period.

WEDGWOOD
WEDGWOOD
Wedgwood

The first reference to marks is the well-known incident of the throwing of the six vases at Etruria in 1769. The circular stamp, without the enclosing rings, is known only on a set of three painted vases in imitation of natural stone, gilt serpent and scroll handles.[1]

This was changed to a wafer, with the word "Etruria" and enclosing rings added,

[1] Rathbone.

on basalte vases and occasionally on the pedestal of busts or large figures. Page 276.

The circular stamp "Wedgwood & Bentley, Etruria" was made to fit between the screw of the basalte granite and Etruscan vases. "It is never found upon the jasper vases of any period."[1] Page 277.

The marks "Wedgwood & Bentley" in caps, large and small, and "Wedgwood & Bentley" in lower-case letters with capital W's in varying sizes appear on figures, busts, granite and basalte vases, medallions, plaques and cameos. The mark is usually accompanied by a number which corresponds to the number in Wedgwood's published catalogues.

WEDGWOOD & BENTLEY

WEDGWOOD & BENTLEY

Wedgwood & Bentley

Wedgwood & Bentley

The initials "W. & B.," also accompanied by a number, occur on the very small intaglios.

The mark "Wedgwood & Bentley" in an oval is rare, and only occurs on chocolate and white seal intaglios, generally portraits. Punctuation only occurs on this and the three circular seal marks given.

Wedgwood & Bentley

After the death of Bentley, and probably also for a short period after Wedgwood's death, the word "Wedgwood" was used alone, in capitals, and in lower-case letters with capital W in varying sizes.

WEDGWOOD

WEDGWOOD

WEDGWOOD

Wedgwood

Wedgwood

Wedgwood

The rare mark "Wedgwood & Sons" (caps) is found on large square plateaux in cane coloured jasper, probably in 1790. The circular in which Wedgwood announced the change of partnership[2] states that the word Wedgwood will henceforth be continued without any addition. This mark, however, must not be confused with the mark "Wedgwood & Co" (in caps) occurring on pottery made at Ferrybridge, Yorks, between 1796 and 1800,

[1] Rathbone. [2] *I.e.*, with his three sons, and Thomas Byerley.

during which period Ralph Wedgwood, cousin of Josiah, was associated with this pottery; also the word "Wedgewood" and "W. S. & Cos., Wedgewood" (in caps) refer to a pottery which was established in 1826 at Stockton-on-Tees by Messrs. William Smith & Co., against whom the Wedgwoods of Etruria in 1848 obtained an injunction, restraining them from the use of the name Wedgwood or Wedgewood.

The name "Josiah Wedgwood" (in caps) with the date Feb. 2, 1805, in some instances 2nd Feby., is the mark of Josiah Wedgwood, junior. It is found only on some basalte tripod incense-burners.[1]

The mark "Wedgwood Etruria" in capitals, in block letters, and in lower-case letters with initial caps was used about 1840, but only for a short period, usually on dark blue stoneware vases and glazed ware.

The mark "Wedgwood" (in caps), printed in red or blue and occasionally in gold was used upon the porcelain made between 1805 and 1815.

The mark "Wedgwood" (in caps, varying sizes) has been continuously used from 1848 to the present time for all kinds of wares. This mark has in fact been used during the whole period which Wedgwood marked his wares, and practically the only means of ascertaining the date of manufacture is in the material, subject and workmanship.

The word "England" (in caps) was added to that of "Wedgwood" in 1891 to comply with the American Customs regulation.

[1] Rathbone.

Fine pieces occasionally occur which bear no mark whatever: this from accident, carelessness, or other causes, such as the grinding down of a piece to fit a metal mount.[1]

It is generally believed that Josiah Wedgwood never attempted the manufacture of porcelain, but it was subsequently undertaken by Thomas Byerley, for a short period only, about 1808, two cups and saucers appearing in the British and one or two examples in the Victoria and Albert Museum respectively, marked in red, "Wedgwood". Byerley died in 1810, when John Wedgwood was again included in the firm.

Wedgwoods have continued to produce their jasper, basaltes, red and cream coloured to the present day. The solid jasper was re-introduced in 1856. They commenced the manufacture of majolica in 1860 and produced some interesting work. Lessore, who had been associated with the firm since 1859, decorating a number of examples in his characteristic manner.

Parian was made about 1848.

Blue printed was produced at an early date, and has been continued to the present day.

The various marks found scratched on the back of pieces, in addition to the name, are either workmen's marks or marks of various significance used by the firm for their own guidance, and are no indication of the value of a piece. Miss Meteyard refers to the letters $\frac{O}{3}$ and 3 as being evidently the marks of expert workmen, and only found on good specimens. Three capital letters occurring with the name was first used in 1860, the first letter being the workman's mark and the other two the month and year of manufacture, on the principle of hall-marks on plate, O signifying 1860, P. 1861, and so forth.

Of special marks, the black basaltes bust of the young Germanicus, modeller unknown, in the collection of the Princess of Wales at Sandringham, is marked with a reversed .S. See Rathbone's *Old Wedgwood*.

[1] Rathbone.

The full length basalte statue of Voltaire was modelled by Keeling at Etruria in 1779 and is marked "K."; very rare.

A basalte vase for lamp, bowl shaped, given in Rathbone's *Old Wedgwood*, was modelled by Keeling about 1785 and marked "K."

The figure of Rousseau bears Hackwood's mark, "H." Other pieces signed by Hackwood are :—

A black and white vase with Venus in her car with attendant cupids, said to be from a design by Le Brun, produced about 1790, marked "H."

A black and white cup and saucer with festoons of ivy and a medallion in blue on cup.

A Jardiniere in white with ornamental border in green, in the Wedgwood Institute, Burslem, is marked "D.," modelled about 1790.

Two medallion portraits, Louis XVI. and Marie Antoinette, blue ground, are marked, "L. P. XVI. F. 1774," illustrated in Rathbone's *Old Wedgwood*.

In each of the above instances the name "Wedgwood" also occurs.

Messrs. Wedgwood, the most conservative of all the Staffordshire pottery firms, have recently made an interesting new departure in entering into an arrangement with Mr. Alfred H. Powell, an able and prolific designer, who took up the decoration of pottery some five or six years ago. Both earthenware and china are decorated at Mr. Powell's studios and show rooms in Red Lion Square, Bloomsbury, the ware being sent to Etruria to be glazed and fired. Large vases, jugs, bowls, dishes, etc., as well as tea and dinner ware are decorated, the general character of the ornamentation being that associated with the name of William Morris. None of the various reproductive printing processes are employed, all the work being freehand. The experiment appears to be a similar one to that made by Mintons in the early seventies, at their Art Pottery Studio at

Kensington Gore, the failure of which was due solely to the lack of intelligent direction.

WEDGWOOD & CO., LTD., Tunstall, Staffs. The unicorn Pottery and Pinnox Works, Tunstall, were occupied early in the nineteenth century by Mr. E. Challinor, succeeded in 1825 by Messrs. G. Podmore, Walker & Co., who were also in occupation of the Swan Bank Pottery. Subsequently Messrs. Enoch Wedgwood & Co. acquired the works which are very extensive. The productions are decorated earthenware of a superior quality.

WHALLEY, JOHN. See Stockton-on-Tees.

WHEELER, THOMAS. One of several potters who were working at Madeley (Salop) about the beginning of the nineteenth century.

WHIELDON, THOMAS. The little information we possess of the early life and work of this great potter is mainly derived from Wedgwood's correspondence, and the circumstance of his association and partnership with Wedgwood. The date of his birth is not known. He commenced business in an extremely modest way in two or three straw-thatched cottages at Fenton Low, at some time previous to 1740. His staple productions at this early period were agate knife handles and snuff-boxes,

which were sold to the Birmingham and Sheffield manufacturers for mounting in metal. He made considerable additions to his works in 1749, and at the date of his partnership with Wedgwood in 1754 was in a prosperous way of business. Whieldon, however, was too conservative in his methods for the younger and more ambitious Wedgwood, and the partnership was amicably dissolved in 1759.

Bird, and box representing a girl's head. Whieldon.—Hanley Museum.

Whieldon made a number of figures, extremely spirited, glazed with the mottled glazes which have become identified with him.

He also initiated the famous cauliflower, maize, melon and pine-apple wares which appear in many collections. It was an excellent convention, the limitation of the material was admirably observed, and the leaf portion formed a most effective contrast to the flower or fruit. It was used for tea and coffee pots, tea poys, jugs, plates, etc. Whieldon occupied the post of High Sheriff of the County of Stafford, and died in 1798 at an advanced age.

Whieldon used no marks, but his famous tortoise-shell glazes, which have been described as the "envy and despair of modern potters," are easy of identification, although they were imitated in all parts of the country.

WHITEHEAD, CHRISTOPHER CHARLES. Was potting at Shelton in 1786. James and Charles Whitehead were potting in Hanley in 1802. Christopher Charles Whitehead built the New Hall Works at Shelton where he made salt glaze and other wares.

WHITTAKER, HEATH & CO., Halefield Pottery, Grafton Street, Hanley. Now out of business.

WIGGLESWORTH & INGHAM. Worked the Ferrybridge Pottery for a short period about 1826.

WILD, THOMAS C., St. Mary's Works, Longton, Staffs. China.

T. W. & CO.

WILDBLOOD, HEATH & SONS, Peel Works, Longton, Staffs. China.

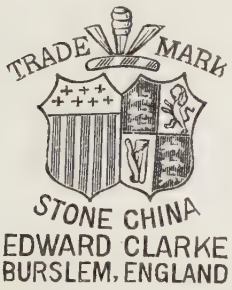
M. W. & CO.

WILEMAN & CO., Foley China Works, Longton, Staffs.

This concern was established by Mr. Henry Wileman, and continued by his two sons, Messrs. James F. & C. J. Wileman. The latter retired in 1870, and Mr. J. F. Wileman was afterwards joined by Messrs. J. B. & Percy Shelley. China of a good quality was at first made, and after Mr. Wileman's retire-

ment and the death of Mr. J. B. Shelley, the management of the business remained in the hands of Mr. Percy Shelley, who continued the production of china, and produced also art faience which is known by the name of "Intarsio," "Urbato" and "Spano-Lustra". The designs are modern in character—a convention based upon natural forms. It is an excellent attempt to produce wares of an artistic character at moderate prices.

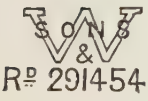
WILKINSON, A. J., LTD., Royal Staffordshire Pottery, Burslem, Staffs. Manufacturers of earthenware. Successors to Anthony Shaw. This firm also produces a semi-porcelain of good quality.



WILLIAMS & HENSHALL. Potters of Longport in 1802.

WILLIAMSON, ROBERT. Married the widow of James Brindley, the engineer. John Brindley, brother of James, built a pottery at Longport in 1773. Williamson built another alongside, and both potteries were incorporated in the business of John Davenport in 1793.

WILLIAMSON, H. M., & SONS, Bridge Pottery, Cook Street, Longton, Staffs. China of excellent quality.



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WILLOW PATTERN. Engraved in 1780 by Thomas Minton for Thomas Turner of Caughley. Adapted from a Chinese original; may be fairly said to be the most popular pattern ever produced in pottery. Many variations exist; plates were engraved by T. Minton for various firms, slight differences occurring in each—in the borders, fences, figures and in the branches of the conventionalised pinus or cedar tree which are sometimes mistaken for apples! The Caughley patterns are marked with the "crescent in blue," the letter "C" (for Caughley) and the letter "S" (for Salopian), occasionally associated with a small cross or crossed swords. The rare mark "Wolfe" given under that name is from a variation of the willow pattern, certainly engraved by T. Minton. The pattern was produced by most English potters and also by many factories on the Continent.

WILSON, ANN. An enameller of High Street, Burslem, in 1802. The name of David Wilson occurs as working at the Abbey Field, Hanley. James Wilson was an enameller in Burslem in 1786. In the Victoria and Albert Museum is a punch bowl printed in blue, inscribed "George Wilson, 1778".

WILSON, ISAAC, & CO. See Middlesborough-on-Tees.

WILSON, J., & SONS, Park Works, Fenton, Staffs. China.

WILSON, ROBERT. Partner with Neale at the Church Works, Hanley, about 1778, under the style of Neale & Co.; in 1786 it was Neale & Wilson. Subsequently Neale retired, and the business was carried on by Wilson alone. He produced a quantity of lustred wares as well as figures. The marks are "WILSON," or a royal crown with the word "WILSON" underneath, together with the letter "C". Robert Wilson was succeeded by his brother David in 1802, who traded under the style of D. Wilson & Sons; afterwards it was the Assignees of Wilson, then successively—Phillips & Bagster, and Bagster

alone, when the works were purchased by Joseph Mayer and rented, in 1831, to William Ridgway & Co. It was afterwards William Ridgway, Son & Co., the son of William Ridgway, Edward John, being admitted to the firm. Upon the retirement of William Ridgway the firm became Ridgway & Abington, then Edward John Ridgway alone, and subsequently Powell & Bishop.

WILTSHAW, ROBINSON, & SON, Copeland Street Works, Stoke-on-Trent. Earthenware delicately potted and tastefully decorated.

WINCANTON, Somerset. A pottery producing Delft ware existed here 1730-1750 in the occupation of Nathaniel Ireson. Examples occur marked "Wincanton," "WINCANTO" and "Nathaniel Ireson 1748". Captain Terry has a fine jug marked "Wincanton" and another bearing Ireson's signature.

WINKLE, F., & CO., Colonial Pottery, Stoke-on-Trent. Commercial earthenware of high quality.

WITHINSHAW, W. E. Occupied the Churchyard Works, Burslem, in 1874. Produced useful wares of good quality. Mark "W. E. WITHINSHAW" and "W. E. W.," both impressed.

WOOD. Partner in Grainger & Wood. See Worcester.

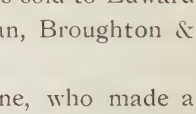
WOOD. There were a number of Woods working in the Staffordshire Potteries during the eighteenth century and later. Isaac Wood appears in Wedgwood's list of Burslem potters in

1710 as making "cloudy" at the top of Robin's Croft. Isa Wood appears in the same list as working at "back of George," the productions not being specified. John Wood appears in the 1786 list, also Josiah Wood as making fine black-glazed, variegated and cream-coloured ware, and blue. John Wood appears in the 1802 list as potting at Brown Hills. John and Ralph Wood, Ralph Wood and William Wood & Co. appear in this list as potting in Burslem. John Wood succeeded Christopher Robinson who had occupied the Overhouse Works from the death of Thomas Wedgwood, the younger, nephew to Josiah, in 1809, and worked it until 1819 when it was sold to Edward Challinor (see Challinor, Edward) and Allman, Broughton & Co.

Simeon Shaw refers to Wood of Hot Lane, who made a coarse Egyptian black in 1700 from the ocherous brown clay and manganese.

WOOD, ARTHUR, Bradwell Works, Longport, Staffs. Teapots. A. W. L. C. & W.

WOOD, RALPH, son of a miller of Burslem. Was one of the most distinguished of the eighteenth-century Staffordshire potters. The full extent of his operations still remains to be discovered. He must have carried on an enormous business in salt glaze, cloudy and mottled, and the current wares of the period, including figures of which he made a large number, fresh examples from time to time being brought to light. Besides being a most skilled potter, he was a modeller of no mean ability, certainly the ablest of the Staffordshire figure modellers, and probably the most skilful block-cutter of the time. He was the first of the Staffordshire figure modellers who signed their works, the well-known group of the Vicar and Moses, together with other figures and groups, bearing his signature. It has been suggested that the two marks "R. Wood" and "Ra. Wood" represent the signatures of father and son respectively, but it



is extremely difficult to discriminate between the two. Ralph Wood, junior, however, occasionally adopted the enamel process of colouring in his busts and figures, and an authentic example of the younger man's work is the well-known bust of Washington. It is difficult also to form any definite conclusion from a comparison of the character of the work, as the quality of it varies in different examples. The Vicar and Moses, an extremely characteristic work, is signed "Ra.

The Vicar and Moses, marked "Ra. Wood".—Victoria and Albert Museum.

The Vicar and Moses.—Modern imitation.

Wood," while the figure of Neptune, an extremely poor work, also bears this signature. Moreover, different examples (the best, from the original moulds, before the group was copied in an inferior manner) bear the two different signatures "R. Wood" and "Ra. Wood". It is quite feasible that the group

of the Vicar and Moses was also made in the younger Ralph Wood's time, from the same moulds, with similar glazing, and impressed "Ra. Wood". We are inclined to believe that by far the greater number of the figures which are associated with the name of Ralph Wood are by the *elder* artist.

It is probable that some of the satyr mask mugs, of which a number exist, were produced both by father and son; no doubt some were modelled by Voyez.

It may safely be assumed that Ralph Wood, senior, employed under-glaze colours exclusively in his figures, as did also his son in his earlier pieces, and that in the later pieces enamel colours were adopted. There is no doubt that Ralph Wood, senior, was by far the abler artist of the two.

Ralph Wood, junior, also produced a granite or porphyry ware made by means of spreading different coloured clays over the ware, smoothing the surface, and afterwards glazing. The younger Ralph Wood was born 1748, died 1797. For other marks by Ralph Wood, see Salt Glaze.

WOOD, AARON, born 1718, died 1772, was the younger brother of Ralph Wood, senior, and was apprenticed to Dr. Thomas Wedgwood in 1731. After the termination of his apprenticeship he worked for Whieldon, and between 1743 and 1750 he worked exclusively for John Mitchell of Burslem, when he set up business for himself. His work as a block-cutter is referred to under Salt Glaze.

WOOD, ENOCH, born 1759, died 1840, was the youngest son of Aaron Wood, and the last of this remarkable family to achieve fame; he was also a good modeller. In the British Museum (H. 45) is a plaque with raised rim, modelled in relief with a shield of arms. On the back is stamped the initials "E. W." with the following inscription painted in red: "Memorandum. These Arms were modell'd by Enock Wood A.D. 1771, being then in the 12th year of his age. Signd William Wood. This piece was found in the possession of Wm. Wood Modeler after his desceace with the above memorandum in his

handwriting in ink and is now in 1821 thus transcribed more durably. This Arms was copied from a rough drawing found on the wall in Chedleton Church there said to be—Wood's Arms."

Enoch Wood set up in business on his own account in Burslem in 1783, the year following his father's death. He made the ordinary wares of the period, together with busts, statuettes and imitations of Wedgwood's jasper and basaltes. In the British Museum (K. 34) is a circular plaque, in blue jasper dip with white relief, of a dancing girl with tambourine, stamped ENOCH WOOD
SCULPSIT.

John Wesley, during one of his preaching tours in the Potteries, gave sittings to Wood, and the well-known bust was produced in 1781, marked "Enoch Wood Sculpsit". A later copy is inscribed—

"The Rev. John Wesley, M.A.
died March 2nd 1791, aged 88
ENOCH WOOD, SCULP. Burslem."

The large figure of "Eloquence" or St. Paul preaching, is marked "E. WOOD".

In 1790 Enoch Wood entered into partnership with James Caldwell, and the mark of the firm from this time until 1818 became "Wood & Caldwell" or "Wood & Caldwell, Burslem".

The bust of Alexander I. of Russia is impressed on the back "Alexander Æt. 35. Moscow Burnt Europe Preserved 1812," marked "Wood & Caldwell, Burslem, Staffordshire".

The partnership was dissolved in 1818, and the firm became Enoch Wood & Sons, using the accompanying mark.

Enoch Wood was an indefatigable collector of Staffordshire wares and formed a large and valuable collection. Ward, in his history of Stoke-on-Trent, says Enoch Wood collected the "early and later specimens of the fictile art, from the rude butter-

pot of Charles II.'s time to the highly adorned vase of modern days". In 1835 the collection was dispersed, two-thirds of which were divided between the museums of London, Edinburgh and Dublin. The rest were sold to the King of Saxony, and are now at Dresden.

Enoch Wood was the first of the Staffordshire potters to make use of bone in earthenware. He refers to the fact in a letter of 26th September, 1826: "I was the first person that made use of bone *in earthenware,* when in my apprenticeship at Mr. Palmer's, at Hanley Green".

WOOD, H. J., Alexandra Pottery, Burslem, Staffs. Earthenware.

WOOD, WILLIAM. Son of Aaron, and brother of Enoch Wood, born 1741. Modelled useful articles for Wedgwood. Applied to Byerley to double his wages because he owed £10 or £12 for malt, and could not do without malt liquor in the house. He worked for Wedgwoods until his death, which occurred about 1820.

WOOD & BARKER, LTD., Queen Street Pottery, Burslem, Staffs. Now out of business.

T. W. & S. T. W. & CO.

WOOD, W., & CO., Albert Street Works, Burslem, Staffs. Door furniture and electrical pottery.

WOOD & SON, Trent and New Wharf Potteries, Burslem, Staffs. Earthenware.

N. W. P. CO.

WOODNORTH & CO. The name appears on a transfer-printed plate in the Bethnal Green Museum; subject, a seated female figure holding a cornucopia, scroll in hand, inscribed "free trade". On one side of the figure is a woolsack dated November, 1818; Irish harp and crown with various masonic emblems in foreground. The engraving signed James Brindley, and plate stamped "WOODNORTH & CO."

WOODWARD, JAMES, LTD., Swadlincote, Burton-on-Trent. Sanitary ware and firebricks.

WOLFE, THOMAS, Stoke. Started business about 1776. He is described in the topographical survey of 1786 as a maker of Queen's ware, blue printed, Egyptian black, cane coloured. Said to be the first potter who employed steam power for the grinding of calcined flints, about

Wolfe.

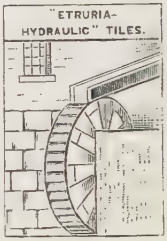
Wolfe & Hamilton Stoke.

Blue printed willow pattern plate marked "Wolfe".
—Collection of Mr. A. E. Clarke, Wisbech.

1790. Silver lustre was first made at these works by John Gardner. In 1802 the firm was Wolfe & Hamilton, who were succeeded by W. Adams & Co.

The earliest mark is the word "Wolfe" as given, and is taken from a jug with raised foliated decoration, slightly painted, in the possession of Mr. A. E. Clarke of Wisbech.

WOOLEY. See Chetham & Wooley.



WOOLLISCROFT, G., & SON, LTD., Patent Tile Works, Hanley, Staffs.

WORCESTER. The porcelain manufactory at Worcester was established by Dr. John Wall, William Davis and other gentlemen in 1751, under the title of the Worcester Porcelain Company. They obtained a lease of twenty-one years, dating from 12th July, 1751, of a fine old mansion, called Warmstry House, formerly the residence of the Windsor family and the Earls of Plymouth. The gardens extended to the river Severn, and the house was transformed into a factory by the addition of out-buildings.

The first partnership Deed (which now hangs on the walls of the Works Museum) has the signatures of the following partners, and is dated 4th June, 1751 :—

William Baylies, Junr.
Edward Cave.
Richard Holdship.
Richard Brodribb.
John Broadribb.
John Borwick.
Josiah Holdship.
J. Thorneloe.
J. Wall.
William Davis.
Edward Jackson.
Samuel Bradley.
John Doharty, junr.
Samuel Pritchett.
William Oliver.

Richard Holdship sold his share in the works in 1759.

Upon the expiration of the lease a new company was formed. Robert Hancock, who had studied under Ravenet, an engraver at the enamel works at Battersea, became associated with the Worcester Works in 1756. Between 1772 and 1774 his name appears in the list of proprietors, which were as follows :—

John Wall, M.D.	Rev. Thomas Vernon.
William Davis, senr.	Richard Cook.
William Davis, junr.	Robert Hancock.

Hancock left Worcester in 1774, and from this year to 1776 the list of proprietors remains the same, with the exception that Hancock's name disappears from it.

Dr. Wall, who had been the leading spirit of the concern, died in the latter year (1776), and from this date to 1783 the business was carried on by William Davis, senior and junior, and the Rev. Thomas Vernon ; William Davis, senior, acting as manager during the whole period.

In 1783 the works were sold, Mr. Joseph Flight, the London agent of the company, purchasing the property for £3,000. Between this date and 1829 the following changes of ownership occurred :—

1783-1793	
Joseph Flight, John Flight	(Joseph & John Flight).
1793-1807	
Joseph Flight, Martin Barr	(Flight & Barr).
1807-1813	
Martin Barr, Joseph Flight, Martin Barr, junr.	(Barr, Flight & Barr).
1813-1829	
Joseph Flight, Martin Barr, George Barr.	(Flight, Barr & Barr).
1829-1840	
Martin Barr, George Barr	(Barr & Barr).

Soon after the sale of the works to Joseph Flight in 1783, two

of the employees, Robert and Humphrey Chamberlain, left the establishment and commenced decorating porcelain, obtaining it in the white from Caughley. In 1788 they started their factory on the site of the present works, close to the Cathedral, and from this date to 1798 the firm consisted of Robert Chamberlain, senr., Humphrey Chamberlain, and Richard Nash as sleeping partner.

Between 1798 and 1804 it was Humphrey Chamberlain and Robert Chamberlain, junr.

Between 1804 and 1811 it was Humphrey Chamberlain, Robert Chamberlain and Grey Edward Boulton (sleeping partner).

From 1811-1827, Humphrey Chamberlain, Robert Chamberlain. From 1827-1840, Walter Chamberlain and John Lilly.

In 1840, after more than fifty years of rivalry, the two firms joined hands, the business being carried on at Chamberlain's Works, near the Cathedral, and constituted a joint stock company as follows—Walter Chamberlain, John Lilly, Martin Barr, George Barr, Fleming St. John, managing directors.

In 1848 the company was again dissolved, and the firm again became Walter Chamberlain and John Lilly.

In 1850 the firm became Walter Chamberlain, Frederick Lilly and W. H. Kerr.

In 1852 the manufactory commenced its second century of working with a new proprietorship—Messrs. W. H. Kerr and R. W. Binns, the works being considerably extended.

In 1862 the firm was again transformed into a joint stock company, with Edward Phillips and R. W. Binns as managing directors.

Mr. Phillips resigned in 1875. In 1889 Mr. E. P. Evans, who had been manager for many years, was appointed joint managing director with Mr. Binns, and since the retirement of Mr. Binns in 1897 has been sole managing director for the company.

Worcester porcelain was a fritt body, *i.e.*, a body in which the

natural properties of Cornish clays were produced by chemical combinations of sand, glass, alkali, etc. It was due to the initiative of Dr. Wall, who was an excellent chemist. Soapstone or steatite was afterwards introduced, and probably also bone ash. "No artificial porcelain of the period can be compared with it for closeness of texture, translucency of paste, or perfect homogeneous union with the glaze. Crazing is practically non-existent."

"The porcelain body at present in use at the manufactory is a special composition, the result of many years' experience." [1]

The "regent" body employed after 1811 by Messrs. Chamberlain for services made for George IV. when Prince Regent, was too costly for any but special uses.

Messrs. Chamberlain also introduced, about 1830, a semi-porcelain which after having undergone many changes in its composition is now known as the "Royal Worcester Vitreous Ware". It is employed for all kinds of useful ware, and does not craze.

The "Ivory Porcelain" is used for the decorative wares, as vases, figures, etc.

The early productions of the Worcester Works, both as regards form and decoration, were based on Chinese models. These, however, subsequently gave place to work of a rococo character in imitation of Dresden, Sèvres and Chelsea.

In 1788 the factory was visited by the King and the Royal family, and the company thereupon styled themselves "China Manufacturers to their Majesties," and adopted the title "Royal" by warrant.

A great deal of bat-printed wares were produced during the Flight & Barr period (1793-1807). The subjects included figures, mostly engraved in stipple after Cipriani, Angelica Kauffmann, Richard Cosway, and others, pastoral and rustic subjects, armorial bearings, groups of shells (which were much used), flowers, and landscape views.

[1] *Guide to the Royal Porcelain Works, Worcester.*

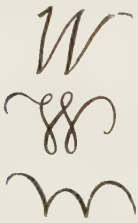
Painted work was also done to a great extent at this period, the principal painters being Astles (flowers), Billingsley (flowers), Baxter (figures), Barker (shells), Brewer (landscapes), Coles (figures), Doe (figures and landscapes), Fogo (figures), Richards (flowers), Silk (landscapes), Stinton (flowers), Webster (landscapes and flowers), Wood (figures).

Encaustic tiles were largely produced by Messrs. Chamberlain during the thirties of the last century, and achieved great success. The business was, however, in 1851, transferred to Messrs. Maw, who removed the works to Broseley, where they were greatly extended.

The earliest marked piece is a punch bowl in the possession of Mr. George Barr, with embossed pattern, the date 1751 painted in blue on the bottom.

The true Worcester mark is the crescent, either in outline or filled in, the latter being found only on blue printed wares. The open crescent *without* additions is the principal mark. It was taken from one of the quarterings of the Warmstry arms, and appears on all kinds of Worcester china from 1751 to the end of the century.

The crescent with additions usually appears on blue ware. The letter W, together with the crescent and the square, are registered trade-marks of the Worcester Works. The W in its

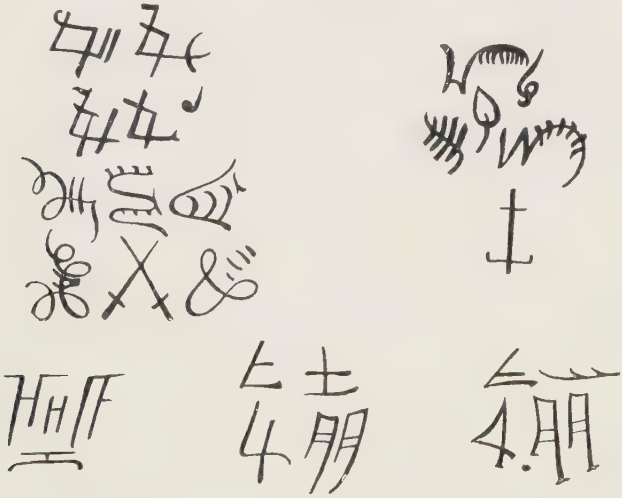


various forms appears on different kinds of ware before 1780. The written cursive W is only found on early works in blue.

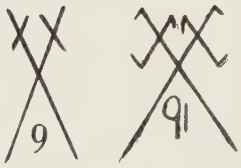
The printed W is very rare, and is found usually on high-class pieces.

The square Chinese marks which are so freely forged, are found on various kinds of ware from 1768 to 1783. The last two in order were less often used.

The curious marks given below are disguised numerals and letters, and were used on occasional pieces up to 1783.



Before 1783 imitations of the Dresden crossed swords were used, with and without a number between the points. These marks are found on many styles of ware and occasionally on black print.



The signature of Robert Hancock appears on black transfer prints between 1756 and 1774, the period of his association

with the works—"Hancock fecit," "R. Hancock fecit" and "R. Hancock fecit Worcester". The latter appears on a mug in the British Museum (V. 31).

Hancock fecit R. Hancock fecit

R Hancock fecit Worcester

The anchor is believed to be a rebus on the name of Richard Holdship, and appears in various forms, but only on black transfer prints between 1756 and 1774. The initials R. H. are supposed to represent Hancock.

Between 1783 and 1793, the period of the ownership of Messrs. Joseph & John Flight, the words "Flight" and "Flights" were used in caps and in cursive characters, in each case with or without a crescent. The word "Flights" (caps) has been found impressed between 1783 and 1791, the word "Flight" in cursive characters in blue during the same period.

Flight. FLIGHTS.

The royal crown appears after 1788, the year of the visit of George III. The mark given opposite appears on the service made for the Duke of Clarence, and was used until 1792.

A capital or cursive B appears incised, after Mr. Martin Barr was taken into partnership, from 1807 to about 1800.

B B

The mark "Flight & Barr" with crown was used between 1793 and 1807.

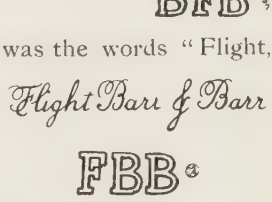
The mark between 1807 and 1813 was the words "Barr, Flight & Barr" in cursive characters.

The mark given opposite was also used, the royal crown and Prince of Wales' feathers being added, together with the address of the London house.

BARR FLIGHT & BARR
Royal Porcelain Works
Worcester
London House
No. 1 Coventry Street.

The initials "B F B" together with the royal crown also appear.

The mark between 1813 and 1840 was the words "Flight, Barr & Barr," in cursive characters, and in lower-case letters with caps. The initials "F B B" were also used, with and without a crown.



Of the marks used by Chamberlain the word "Chamberlains" in lower-case letters with capital C was used with or without "Worcester" between 1788 to about 1804.

The accompanying mark occurs on specimens produced in 1814.

Chamberlains
Worcester
& 63 Piccadilly
London.

This was a printed mark, 1814-1820.

Chamberlains
Regent China
Worcester
& 155
New Bond Street
London.

Printed mark used between 1820 and 1840.

Chamberlains
Worcester
& 155
New Bond St. London.
Royal Porcelain Manufacturers.

The three last in cursive characters, with Royal Crown and Royal Arms above.

Printed mark, 1840-1845.

CHAMBERLAIN & CO.
WORCESTER
155 NEW BOND STREET
NO. 1 COVENTRY STREET
LONDON

Printed mark used in 1847. *Chamberlain & Co. Worcester.*

The word "Chamberlains" in block letters was used between 1847 and 1850, both impressed and printed.

The oval mark "Chamberlain & Co. Worcester" with crown was used in 1850 and 1851.

The four cursive W's in circle was used by Kerr & Binns between 1852 and 1862.

The shield with "K. & B. Worcester" was used by Kerr & Binns on special pieces.

The annexed mark is the principal mark used by the present company since 1862.

This mark appears on a facsimile of the well-known salt-glaze jug, which is known as the "Shakspere" jug. It had no reference to Shakspere but was modelled with the low relief subjects which were characteristic of the earearlier salt-glazed wares, and which were derived from eastern sources.

In 1889 the china works of George Grainger & Co. were acquired by the Royal Porcelain Works, and the business has since been transferred there. These works were established in 1800 by Thomas Grainger, a nephew of Humphrey Chamberlain, and produced similar wares to the Royal Worcester Works. Two large vases at South Kensington with views of Worcester and Malvern are marked "Grainger, Lee & Co. Worcester". The Worcester Regatta mug for 1846 painted with a view of Worcester is marked in red in cursive characters "George Grainger, Royal China Works, Worcester". Another mark was "G. Grainger & Co. Manufacturers Worcester," within a ribbon. The later trade-mark of the firm is given in the margin. The firm was Grainger & Wood, 1800-1812; Grainger, Lee & Co., 1812-1839; George Grainger & Co., 1839-1889.

WORTHINGTON, HUMBLE & HOLLAND. See Liverpool Herculaneum.

WREDE. A German maker of stonewares at Bristol about 1700.

WRIGHT, JOHN. } See Brampton.
WRIGHT & CO. }

WRIGHT, SAMUEL. Took out a patent in 1830 for encaustic tile-making which was afterwards purchased by Herbert Minton.

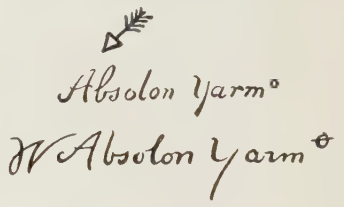
WRIGHT, THOMAS. Was potting in Hanley in 1786.

WRIGHT, JOHN & WILLIAM. See Slip Wares.

WROTHAM. See Slip Wares.

YARMOUTH. An enameller named Absolon, whose family towards the close of the eighteenth century were china dealers in the town, worked at a place called "The Ovens" and decorated the plain ware which he obtained from several manufactories, such as Wedgwood, Wigan Pottery and Turner.

The arrow mark impressed is similar to that appearing on Wedgwood's Queen's ware. The pieces, usually dishes and plates, were decorated by Absolon with fruit and flowers. In the British Museum is a cylindrical mug painted in colours with an agricultural trophy and the motto "May Farming Flourish" signed in red "Absolon Yarm°". The name "Absolon Yarm" was painted in enamel on the back of the piece, together with, usually, the botanical name of the flower which formed its subject. The specimens numbered 3697-'01 to 3702-'01 in the Victoria and Albert Museum are so marked.



In the Frank Freeth Collection is a fruit dish painted with a landscape with church, stamped "Turner" and marked "W. Absolon Yarm ⊖".

YATES, JOHN, Hanley, 1770. John and William Yates were potting in Shelton in 1802. Ward (*History of Stoke-on-Trent*) refers to a china and earthenware manufactory at Shelton worked at that period (1828) by Yates & May.

YEARSLEY, Yorks. A pottery existed at this place at the beginning of the eighteenth century, worked by a member of the Wedgwood family (referred to by Chaffers). Coarse brown and green glazed wares were made.

YOUGHAL, Cork. A manufactory of ordinary brown wares exists here.

YOUNG, WILLIAM WESTON. An able painter at the Swansea Works (see Swansea), pupil of Dillwyn; painted butterflies, plants and other objects of natural history, and occasionally figures. There is a plaque in the Victoria and Albert Museum painted by him with a Druid cutting mistletoe from an oak-tree, about 1803-1805. A covered basin in the same collection with butterflies is an excellent example of this

painter's work. In the British Museum (P. 2) is an earthenware flower-holder with birds, butterflies and caterpillar on a vine branch, signed "Young pinxt" marked "Cambrian," in gold cursive capitals. Young subsequently took over the Nantgarw Works. See Nantgarw.

THE END

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(*See* "*Evaporating, Condensing, etc., Apparatus*," *p.* 26.)

Bibliography.

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